Puma III Series
User Manual

http://www.GCCworld.com

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NOTICE

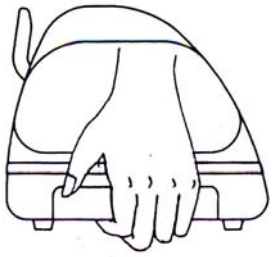
GCC reserves the right to modify the information contained in this user manual at any time without prior notice; un-authorized modification, copying distribution or display is prohibited. All comments, queries or suggestions concerning this manual please consult with your local dealer.

Important Information

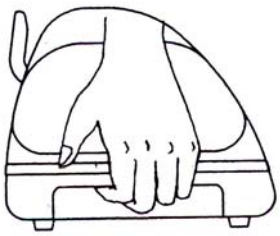
Thanks for your purchase of GCC *Puma III* Cutting Plotter. For your safety and to optimize the performance of the Puma III, please read the user manual completely and keep it in a correct location.

PRECAUTIONS IN USE

- For safety concern, please always hold the cutter firmly **from the bottom** when moving it. Do not move the cutter by clasping the depression area on both sides.



(O)
hold from the bottom



(X)
hold the depression area

- Do not shake or drop the blade holder, a blade tip maybe fly out.
- During operation, keep away from any moving parts of the cutter (such as the carriage, drums). Also be careful that your clothing and hairs do not be caught.
- Always connect the power cable to a grounded outlet.
- Always use the accessory power cable that is provided. Do not wire the power cable so that it becomes bent or caught between objects.
- Do not connect the power cable to branching outlet to which other machines are also connected, or use an extension cable. There is danger of overheating and of misoperation of the machine.
- Keep the tools away from children where they can reach.
- Always put the pinch rollers within position of the white marks.

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Chapter 1 General Information

1.1 Introduction

Puma III series cutting plotters have been designed to produce computer-generated images or perform contour cutting on sheets or rolls of vinyl media.

This manual covers the following models of Puma III series cutting plotters:

• P3-60	for media width: 70mm(2.76”) ~ 719mm(28.3”)
• P3-132S	for media width: 70mm(2.76”) ~ 1470mm(57.87”)

1.2 Package Items

The package of the Puma III model contents the items listed below, please check carefully. If you find any item missing, please consult your local dealer for further assistance.

<table>
<tr><th>Standard Item</th><th>Quantity</th></tr>
<tr><td>1. Cutting Plotter</td><td>1</td></tr>
<tr><td>2. Stand Set (for P3-132S only, optional for P3-60)
● 1 piece of H-shape stand
● 2 pieces of stands
● 1 piece of stand beam
● 1 piece of M5 L-shape hexagon screw driver
● 4 piece of Stand Wheel
● 1 piece of Wrench 14mm
● 1 piece of Installation Guide for Stand Set</td><td>1</td></tr>
<tr><td>3. Flexible Media Support System Package
<table>
<tr><th>Items</th><th>P3-60</th><th>P3-132S</th></tr>
<tr><td>1 set of Roll Media Flange (2 pieces)</td><td></td><td>V</td></tr>
<tr><td>1 set of Roll Holder (2 pieces)</td><td></td><td>V</td></tr>
<tr><td>1 set of Roll Holder Guide Bushes (4 pieces)</td><td></td><td>V</td></tr>
<tr><td>1 set of Roll Holder Support (2 pieces)</td><td></td><td>V</td></tr>
<tr><td>32 pieces of M6 screws</td><td></td><td>V</td></tr>
<tr><td>1 piece of M6 L-shape hexagon screw driver</td><td></td><td>V</td></tr>
<tr><td>1 piece of Roll Base</td><td>V</td><td></td></tr>
</table></td><td>1</td></tr>
</table>

4. Accessory Bag ● 1 piece of User's Compact Disk ● 1 piece of AC power Cord ● 1 pieces of data cable (RS-232C) ● 1 pieces of data cable (Print cable) ● 1 pieces of data cable (USB cable) ● 1 set of Blade Holder Assembly (Installed in tool carriage of the cutting plotter) ● 1 piece of Blade (Installed in Blade Holder) ● 1 piece of Safe Blade ● 1 piece of Cutting Pad ● 1 piece of Tweezers ● 1 piece of Promise Card	**1**

1.3 Product Features

The following are the main features of the Puma III series cutting plotters:

- Tri-port connectivity provides you with greater flexibility.
- Up to 400-gram cutting force.
- Up to 600mm/per second cutting speed.
- Guaranty 3-meter tracking.
- User-friendly, multi-language control panel
- Enhanced Accu-Aligning System for contour cutting.

1.4 Appearance of Puma III

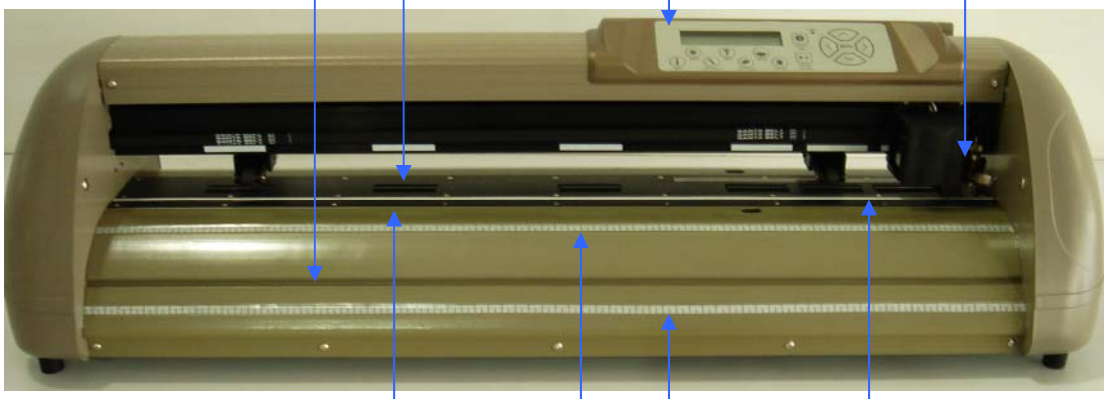
1.4.1 The Front View (Figure 1-1)

Grid Drums
move the media back and forth during operation.

Slicer Groove
cuts off the extra media easily along this groove.

Control Panel
14 buttons and 1 LED and 1 LCM showing messages and menus.

Tool Carriage
performs the cutting with the installed blade or pen with AAS module.



Platen
provides the surface for supporting media while cutting

Cutting Pad
provides the protection of blade when the blade is cutting.

Alignment Rulers
media can be aligned with the clear guide line marks

Figure 1-1

1.4.2 The Back View (Figure 1-2)

Pinch Rollers
hold the media during cutting.

Lever
raises or lowers the pinch rollers.

Figure 1-2

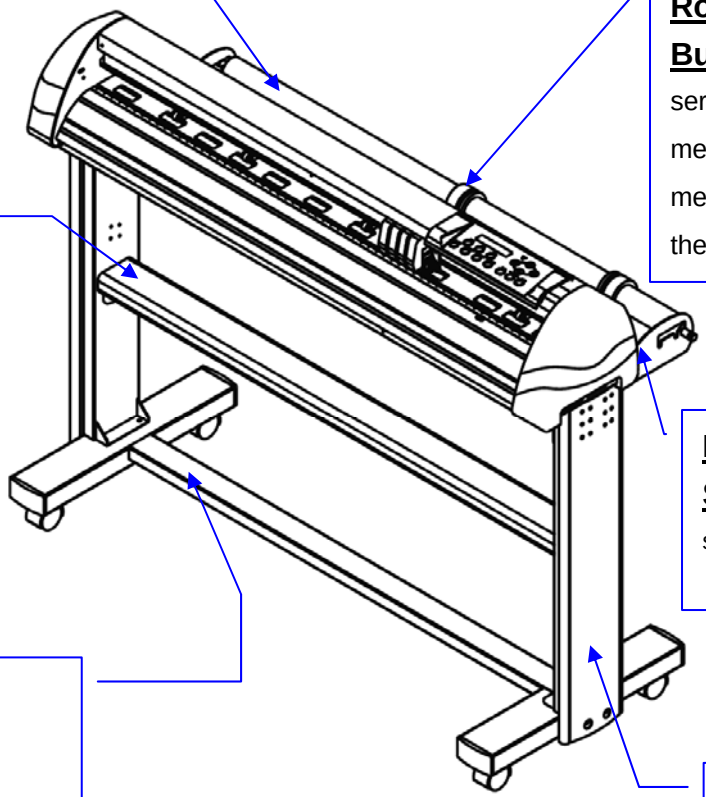
1.4.3 The Whole View (Figure 1-3)

**Stand for Puma III 60 is an optional item.
**Stand for Puma III 132S is a standard item.

Roll Holder
holds and supplies the roll media for cutting.

Roll Holder Guide Bushes
serve to keep the roll media in place when media is pulled from the roll.

Stand Beam
stabilizes the body.



Roll Holder Support
supports roll holders

H-shape Stand
supports the cutting plotter body.

Stand
supports the cutting plotter body.

Figure 1-3

1.4.4 The Left-hand Side (Figure 1-4)

Power Switch – On when switches to [I]; Off to [O]

Fuse – 3 Amp.

AC Power Connector

Figure 1-4

1.4.5 The Right-hand Side of Puma III (Figure 1-5)

Serial Interface Connector (RS232C)
used to connect the cutting plotter to a computer through a serial interface cable.

Parallel Interface Connector
used to connect the cutting plotter to a computer through a parallel interface cable

USB Connector
used to connect the cutting plotter to a computer through a USB cable.

Figure 1-5

Chapter 2 Installation

2.1 Precaution

Notice 1

- ❖ Carefully handle the cutter to prevent any injuries.
- ❖ Make sure the power switch is off before installing the cutting plotter.

Notice 2 A proper place for installation the cutting plotter

Please select a proper location that meets the following conditions.

- ❖ The machine can be approached easily from any direction.
- ❖ Keep at least 60 cm space in front and behind the machine.
- ❖ Make sure the cutter is placed on a flat, level and sturdy surface
- ❖ The operation temperature should be between 10℃ to 35℃ (50 ^{o}F ~ 95^{o}F) in the workshop.
- ❖ The relative humidity should be between 25% to 75% in the workshop.
- ❖ Protecting the machine from dust and air current.
- ❖ Preventing the machine from direct sunlight.

Notice 3 Connecting the Power Supply

Check the plug of the power cord to see if it matches the wall outlet. If not, please contact your dealer.

- ❖ Insert the plug (male) into a grounded power outlet.
- ❖ Insert the other end (female) of power cord into the AC connector of cutting plotter.

2.2 Stand & Flexible Media Support System

2.2.1 Stand Installation(for P3-60)

Please follow procedure below to assemble stand and media support system.

Step 1 Please examine supplied items in the accessory box of stand carton before you install:

Stand is a optional item for Puma III-60,Item List：

- 2 pieces of T-shape stand
- 1 piece of Stand Beam
- 18 pieces of M6 screws
- 1 piece of M6 L-shape hexagon screw drive
- 1 piece of Wrench 14mm
- 1 piece of Installation Guide for Stand Set
- 1 piece of M5 L-shape hexagon screw drive
- 4 piece of Stand Wheel
- 1 piece of Roll Base.

Step 2

There are three components to assemble it. Please refer to Figure 2-1. Assemble the T-shape stand and stand beam by screws

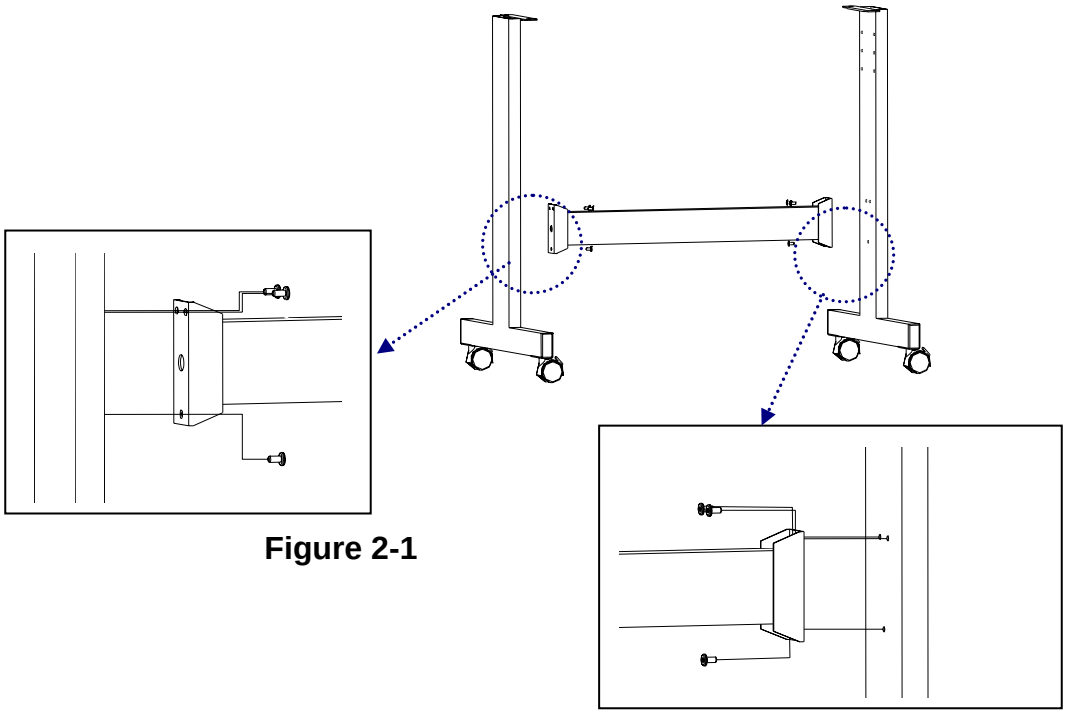


Figure 2-1

Step 3

Place the cutter firmly onto the stand assembling by screws.

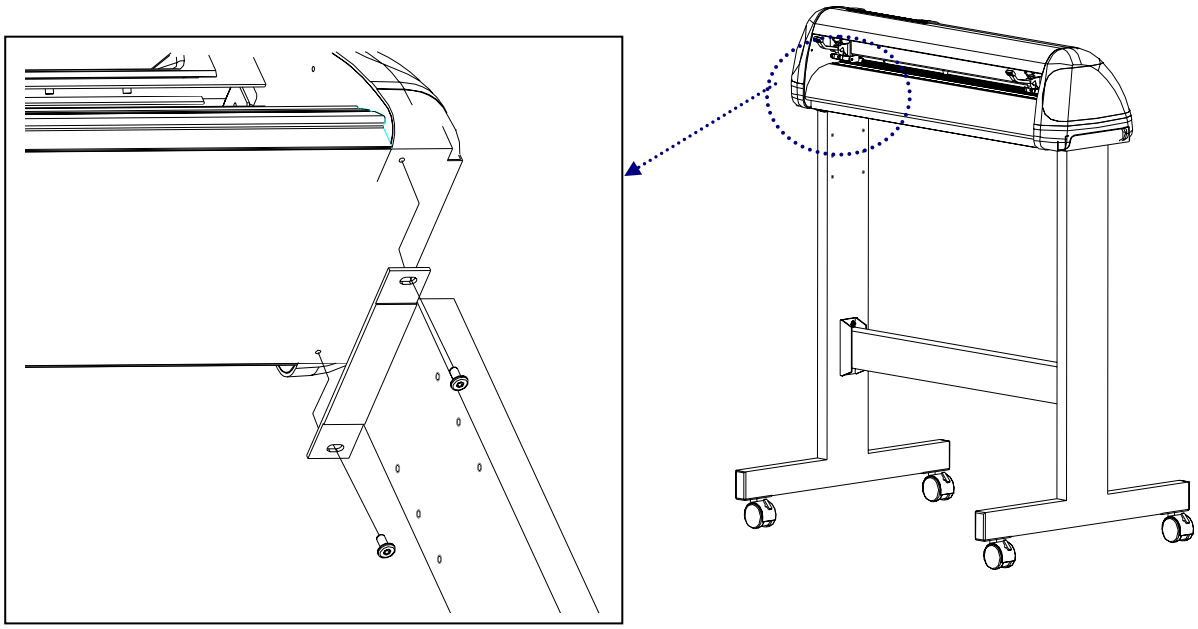


Figure 2-2

2.2.2 Stand & Flexible Media Support System (for P3-132S)

Please follow procedure below to assemble stand and media support system.

Step 1 Check screws and wrench in the accessory box:

Stand is a standard item for Puma III-132. Item List：

- 1 piece of H-shape stand
- 2 pieces of stands
- 1 piece of stand beam
- 1 piece of M5 L-shape hexagon screw driver
- 4 piece of Stand Wheel
- 1 piece of Wrench 14mm
- 1 piece of Installation Guide for Stand Set
- 1 set of Roll Holder (2 pieces)
- 1 set of Roll Holder Support (2 pieces)
- 1 set of Roll Media Flange (2 pieces)
- 1 set of Roll Holder Guide Bushes (4 pieces)
- 1 piece of M6 L-shape hexagon screw drive
- 32 pieces of M6 screws

Step 2

Puma III-132 Stand: There are four components to assemble it. Please refer to Figure 2-3, 2-4 and 2-5.

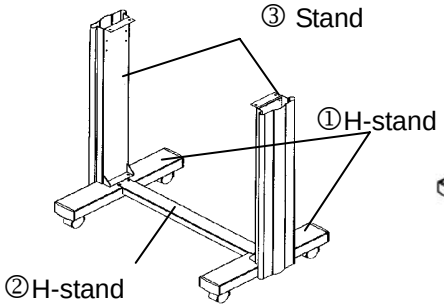


Figure 2-3
(Puma III-132)

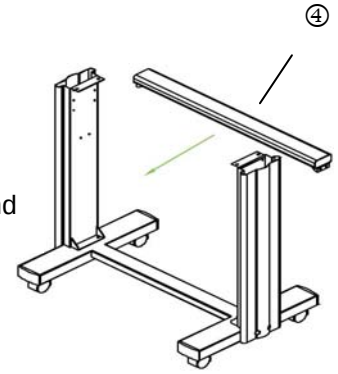


Figure 2-4
(Puma III-132)

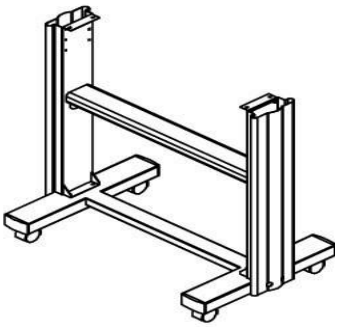


Figure 2-5
(Puma III-132)

Step 3

Then connect part ③ and H-shape stand. Firstly, position the extension of part ③ into the squares holes on H-stand. Secondly, insert the screws into the holes besides the squares then tighten them, see Figure 2-6.

*Only Puma III-60 has two side screws.
*Puma III-132 doesn't have side screws.
* Stand for Puma III-60 is an optional item.

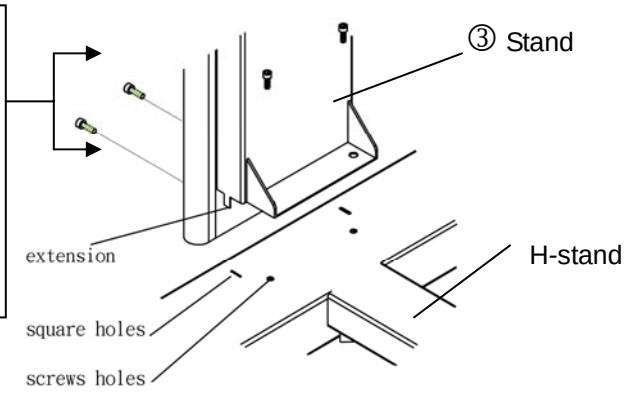


Figure 2-6

Lastly, (For Puma III-132 only) place the stand beam perpendicularly to part ③ and put the screws into the holes and tighten them as Figure 2-7.

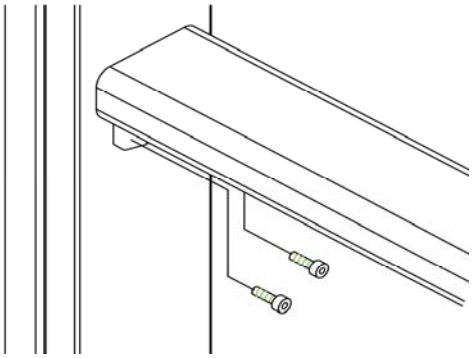


Figure 2-7
(Only for Puma III-132)

Step 4

Move the cutting plotter from the carton. Put it on the stand, then Insert the screws into the holes on plotter's bottom as Figure 2-8.

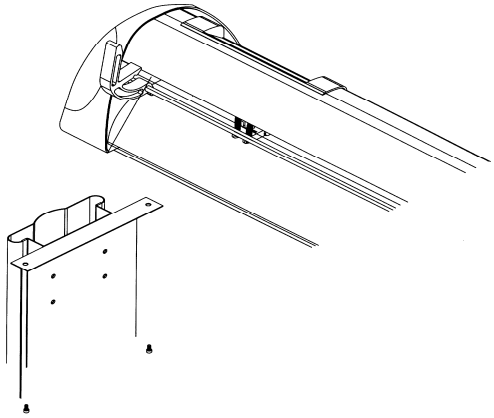


Figure 2-8

Step 5

Insert the roll holder support with the screws into the holes of the stand then tighten them as Figure 2-9. You can decide roll holder support's position by inserting into different holes.

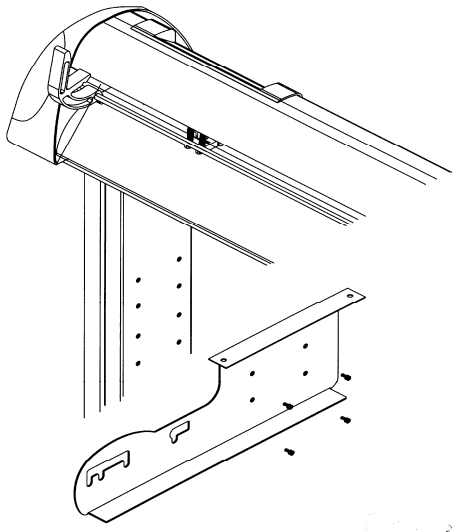


Figure 2-9

Step 6

Place two roll holders into the holes in the roll holder support (Figure 2-10).

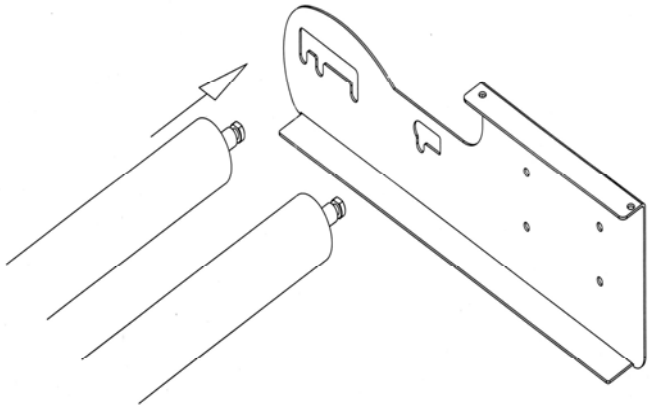


Figure 2-10

2.3 Blade Installation

! Caution

Do not touch the tip of the blade by your fingers.

! Notice

The blade is a consumable item, which will affect the cutting quality significantly. Please replace with a new blade when having the following situations:

1. The tip of blade is broken.
2. The cutting traces are not as good as they were.
3. Uncut area remains the same even the blade force has been raised significantly.

Figure 2-11 is the picture of the blade holder. Insert a blade into the bottom of the blade holder. Pushing the pin on the top of blade holder can remove the blade. Be sure to keep your fingers away from the blade tip.

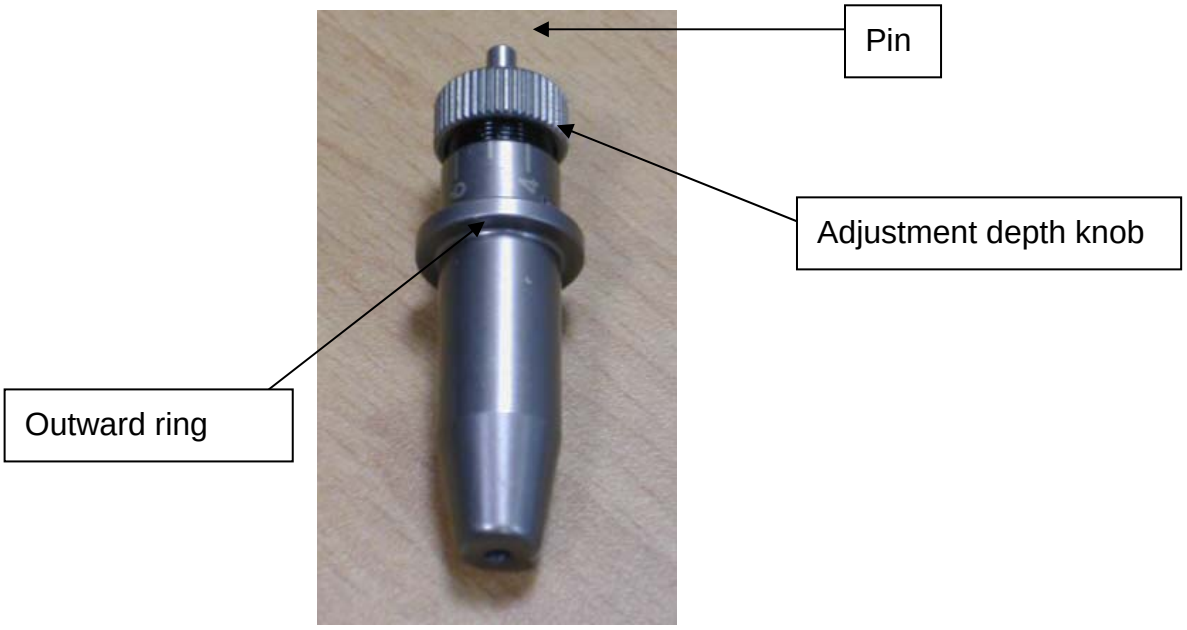


Figure 2-11

1. Install Blade. (Figure 2-12)

Figure 2-12

2. Push the blade to the bottom of the blade holder. (Figure 2-13)

Figure 2-13

3. Adjust the blade tip to suitable length by rotating “Blade tip adjustment screw” clockwise or counterclockwise. (Figure 2-14)

Figure 2-14

Tips:
“The proper length” means the blade length is about 0.1mm more than film’s thickness. For example, if the thickness of film is 0.5mm, then the blade length is properly adjusted to 0.6mm and it can completely cut through the film layer without cutting though the paper backing.

4. Insert the blade holder into tool carriage. Please note the outward ring of the holder must put into the groove of carriage firmly (Figure 2-15) and lock the grip. (Figure 2-16)

Figure 2-15

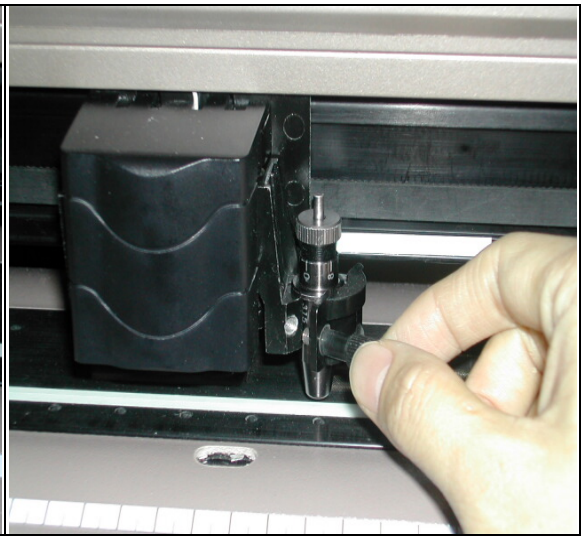


Figure 2-16

5. Reverse steps mentioned above to remove the blade holder.
6. Press the push-pin to remove the blade from the blade holder when replacing blade. (Figure 2-17)

Figure 2-17

2.4 Cable Connections

Puma III communicates with a computer through **USB (Universal Serial Bus), Parallel port (Centronics) or Serial port (RS-232C)**. This chapter shows you how to connect the cutting plotter to a host computer and how to set up the computer/cutting plotter interconnection.

!! **Notice:** When USB connection is enabled, both parallel port and serial port will be disabled automatically.

Figure 2-18

2.4.1 USB Interface

Puma III build-in USB interface is based on the Universal Serial Bus Specifications Revision 1.1. USB is not available in Windows 95, Windows NT.

- USB driver installation

Caution!! Don't plug USB cable into plotter before you install USB driver.

a. Put USB cable aside (don't plug it into Puma III).
b. Insert "Installation CD", and then click on "USB driver" to install USB driver. USB driver will remove drivers which occupy USB port first, then install GCC USB driver. The USB driver was installed successful when a popup window shows "USB Driver installed".

■ Connection

Plug the USB cable into the Puma III USB port. Plug the other end of the cable into the PC's USB port.

■ Cutting driver or sign cutting software installation

Insert "Installation CD", and then click on "Driver" to install driver working with CorelDRAW. Or install SignPal software (please refer to user manual of SignPal software).

2.4.2 Parallel Interface

● Connecting to the Parallel (Centronics) Port

1. Connect a parallel cable to the cutting plotter and the host computer
2. Set up the output port **LPT1** or **LPT2** from your software package
3. Send the data to your cutting plotter directly. Or, use DOS commands like **TYPE** or **PRINT** to output data.

Caution!! Please turn off the plotter before plugging the print cable.

2.4.3 RS-232 Interface

■ Connecting to the RS-232 (Serial) Port

1. For Personal Computer users, connect the RS-232C cable to the serial connector of the assigned serial port (COM1 or COM2) on your host computer.

2. Set up the communication parameters (Baud Rate and Data Bits/Parity) to match the setting of software package, refer to chapter 3 – "MISC" key description.

Caution!! Please turn off the plotter before plugging the RS-232C cable.

2.4.4 Data Transmitting

There are two options to transmit the data from the computer to the cutting plotter:

Option 1

With proper interface settings, the data can be transmitted from your application software package to the cutting plotters directly.

Option 2

Most cutting software packages are able to emulate **HP-GL** or **HP-GL/2** commands, therefore, Use DOS commands like **TYPE** or **PRINT** to output your file. As long as the file is **HP-GL** or **HP-GL/2** format, the cutting plotter can output the data precisely.

For example, a file with **PLT** extension generated by **SignPal** can be transmitted directly to the plotter at the DOS prompt, and then be cut out. Before outputting at the DOS prompt, set up a transmission protocol between your cutting plotter and computer by a DOS command, MODE. Make sure that your PC has the same communication protocol as the cutter. For example:

MODE COM2: 9600, N, 8, 1, P

Then**,** use **TYPE** command to output via **COM2** if **COM2** is the assigned output port.

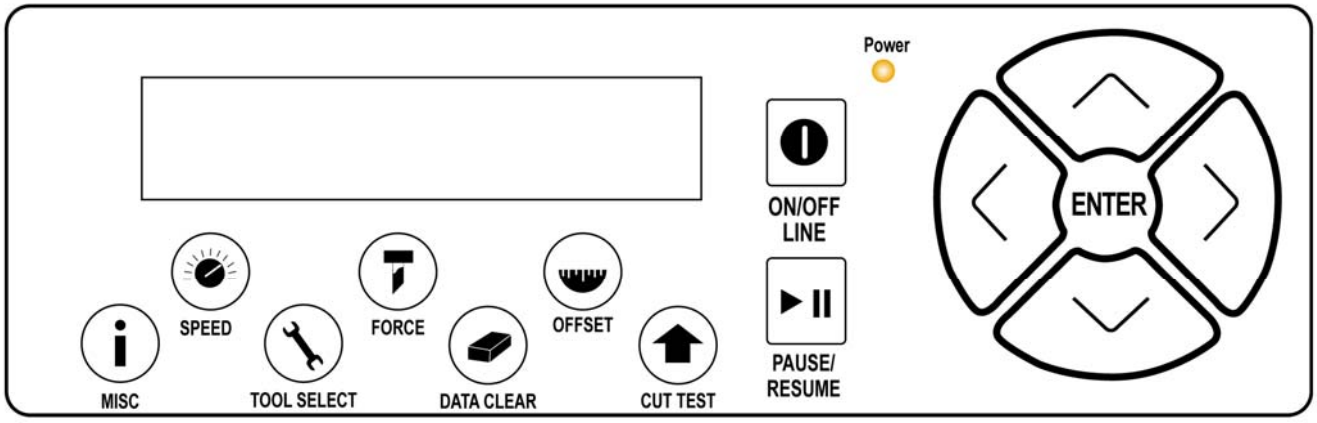
TYPE *filename* > COM2

> *Tip:* Add the **MODE** command line to your system's **AUTOEXEC.BAT** to automatically execute **MODE** command every time you want to output your data at the DOS prompt via serial connection. However, values in a **MODE** command should comply with the related requirements of your software. Refer to DOS manual for further information.

Chapter 3 The Control Panel

This chapter describes the button operations with the LCM menu flowcharts of Puma III. When the cutting plotter is ready for use as described in Chapter 1 & 2, all functions are under default parameters.

3.1 The LCD Panel



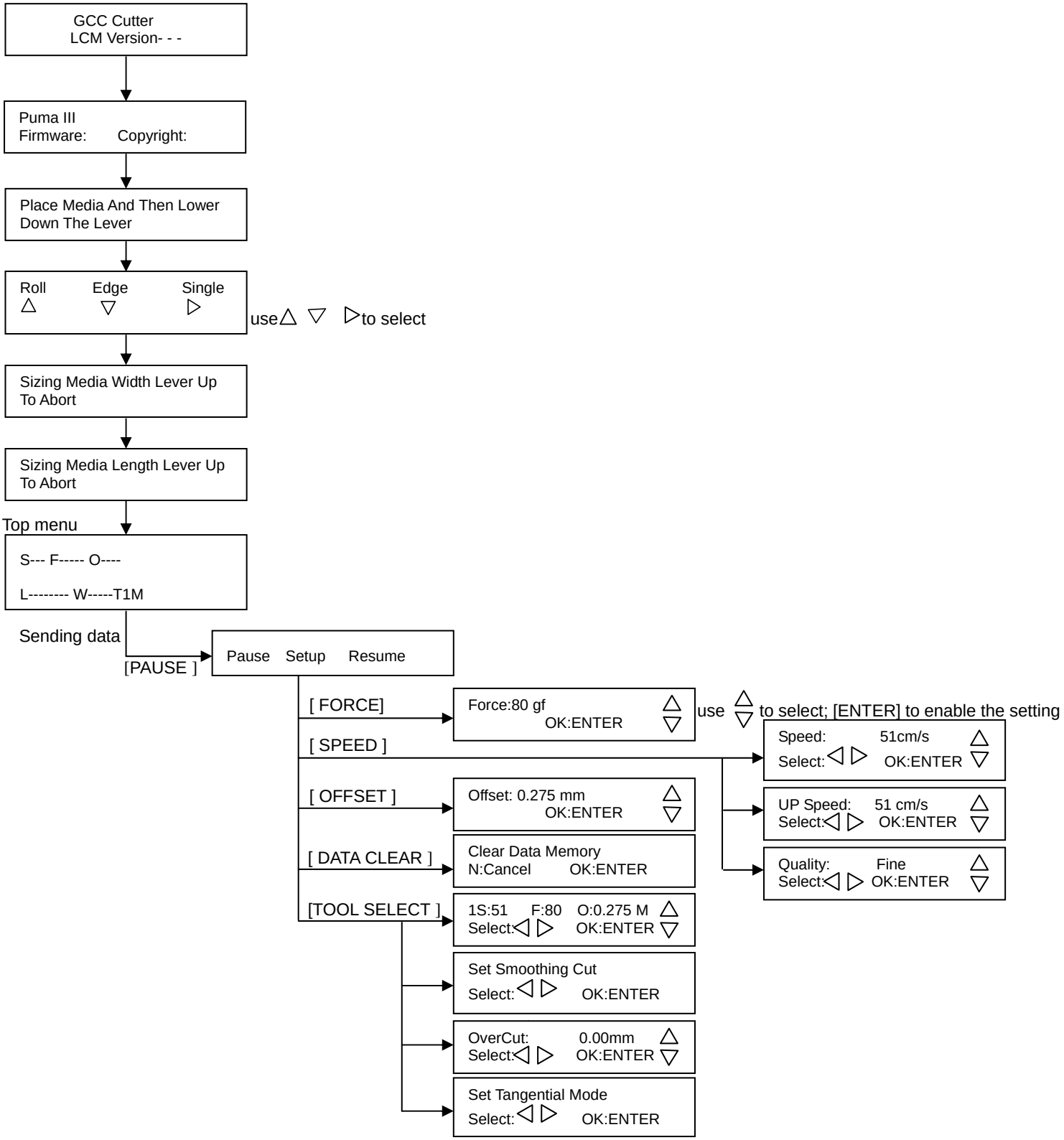
< LCD Control Panel on Puma III series >

Key	Function
LCD Screen	To display functions and error messages.
Power LED	To indicate the power status (light up: power on; light off: power off)
4 Arrow Keys	To move position, select function, or change setting.
ENTER	To set item or register the immediately preceding input value.
PAUSE/RESUME	To temporarily halt cutting process or to continue
ON/OFF LINE	To switch modes, stop cutting job, or abort changes of settings.
OFFSET	To adjust the value of blade's offset.
FORCE	To adjust the value of cutting force.
SPEED	To adjust the value of cutting speed and quality.
CUT TEST	To perform cutting tests in different ways.
DATA CLEAR	To clear up buffer memory.
TOOL SELECT	To select tools.
MISC	To set up functions.

Please see details in "3.4 Menu Items"

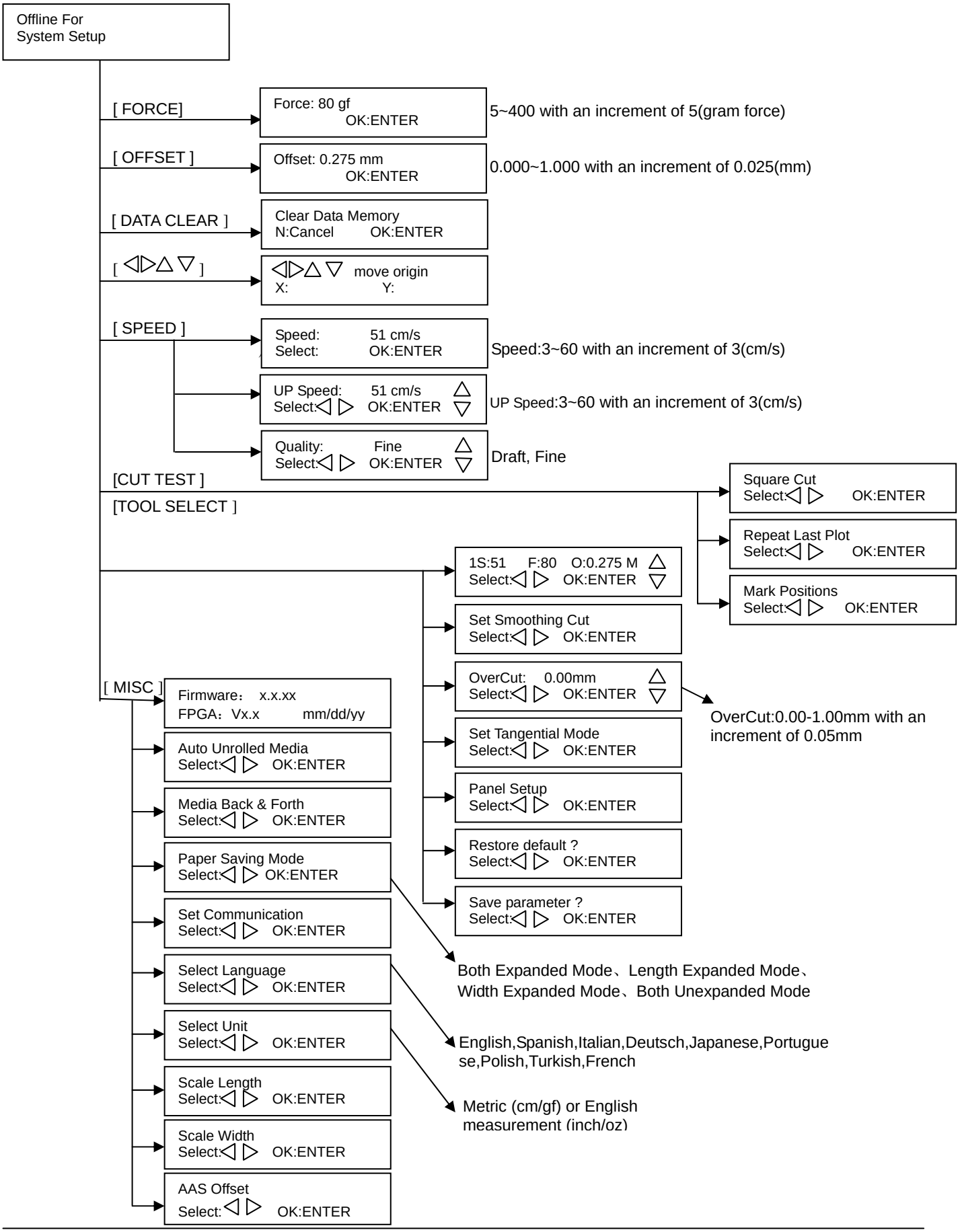
3.2 Menu in On-line Mode

Power On Puma III in processing



3.3 Menu in Off-line Mode

Press [ON/OFF LINE] to switch to the offline mode



3.4 Menu Items

Below describes the functions of menu items

Menu or Key	Function	Setting	Default
--- Media sizing ---			
Roll	To measure media width.	Maximum Tracking 150 meters	
Edge	To measure media width and pull the media back till the front paper sensor open.	Maximum Tracking 150 meters	
Single	To measure media width and length.	Maximum Tracking 10 meters	
--- POWER ---			
	To indicate the power status.		
[Arrow Keys]			
	1. To move the tool carriage position on X or Y axis. 2. To select functions or change values of settings.		
[ENTER]			
	1. The displayed parameters will be saved automatically. 2. To set a new origin at the present tool carriage position. In “offline” mode, moving the tool carriage to desired position by [Arrow Keys], then press [ENTER] key to set a new origin. While moving with the parameters of XY-axes displayed, press [MISC] key will enable fine-tune movement; press [MISC] key again to disable the function.		
[PAUSE/RESUME]			
	To temporarily halt the cutting process. To resume the process by press [Pause/Resume] key again.		
[ONLINE/OFFLINE]			
	1. To switch between online mode and offline mode. 2. To stop the cutting job or abort the change of setting. Once press this key, the cutting job will be terminated immediately and cannot be resumed.		
[OFFSET]			
	To set or modify the distance between the blade tip and the center axis.	0.000~1.000mm	0.275mm
[FORCE]			
	To set or modify the value of tool force.	5~400gram; 5 gram/per step	80 gram
[SPEED]			
Speed	To set or modify tool speed at horizontal moving.	3~60cm/sec; 3cm/sec per step	51cm/sec
Up Speed	To set or modify tool speed at vertical moving.	3~60cm/sec; 3cm/sec per step	51cm/sec
Cutting Quality	To set or modify cutting quality. While cutting in high quality, set as “Fine”. While cutting in high speed, set as “Draft”.	Draft, Fine	Fine
[CUT TEST]			
Square Cut	To perform a cutting test at present blade position. For more information, please refer to “4.3 Adjusting the Cutting Force and Offset” to adjust blade force and cutting speed.		

Repeat Last Plot	Recut: To repeat the last job without re-sending the data.	1~99; 1 per step	
	Copy: To copy the last job without re-sending the data. * 1mm gap will be auto-generated between 2 copies). * If the media length is not enough to continue, it will show below message on LCM: Out Of Space; # of Copies finished * If both functions are enabled at the same time, the cutter will perform the last setting only.	1~99; 1 per step	
Mark Positions	2-points: To manually position 2 points for contour cutting.		
	3-points: To manually position 3 points for contour cutting.		
[DATA CLEAR]			
	To clear up buffer memory.		
[TOOL SELECT]			
Set Smoothing Cut	To enable smooth-cutting function.		Enable
Over Cut	To generate an overcut to facilitate weeding.	0.00mm-1.00mm 0.05mm/per step	0.00mm
Set Tangential Mode	To enable the emulated tangential-cutting mode for thicker media types and small letter cuts. Note: while the Offset value setting at 0.000 mm, “Set Tangential Mode” will automatically be disabled.		Disable
Panel Setup	Accept setup command: To accept commands of the Force, Speed, Cutting Quality, and Offset only via software.		
	Control panel only: To accept commands of the Force, Speed, Cutting Quality, and Offset only via control panel of the cutter.		
Restore Default	To turn all parameters of the menu items to factory-default settings.		
Save Parameter	To save pattern(s) of cutting parameters for later use.		
[MISC]			
Auto Unrolled Media	To avoid paper jam and motor crash by automatically unroll media (50cm and up) before cutting while enabled. . * Auto-unroll only effects on roll/edge media. * Using Single mode to size media will disable this function automatically. * If the length of the rolled media is less than 2 meters or the weight is light, it is recommended to set this mode disabled.		Disable
AAS Offset	To set or modify AAS offset value. You can refer to “5.3 Printer Test” for more details.		
Media Back & Forth	To enable to save time on repeated cutting jobs and better tracking. After cutting job has finished, the media will move back to the origin, then move to the end of the plot.		Disable

Paper Saving Mode	To save media by four different modes: 1. Length expanded mode 2. Width expanded mode 3. Both expanded mode 4. Both unexpanded mode		Both unexpanded mode
Set Communication	To build up the communication between host computer and cutter. *Baud Rate* is to determine the speed of data transmission. *Data Bits* refers to the size of one block of data. *Parity* is used to check if data was revived correctly or not. 9600, n, 7, 1, p 9600pbs, 7 Bits with NO Parity 9600, o, 7, 1, p 9600pbs, 7 Bits with ODD Parity 9600, e, 7, 1, p 9600pbs, 7 Bits with EVEN Parity 9600, n, 8, 1, p 9600pbs, 8 Bits with NO Parity 9600, o, 8, 1, p 9600pbs, 8 Bits with ODD Parity 9600, e, 8, 1, p 9600pbs, 8 Bits with EVEN Parity 19200, n, 7, 1, p 19200pbs, 7 Bits with NO Parity 19200, o, 7, 1, p 19200pbs, 7 Bits with ODD Parity 19200, e, 7, 1, p 19200pbs, 7 Bits with EVEN Parity 19200, n, 8, 1, p 19200pbs, 8 Bits with NO Parity 19200, o, 8, 1, p 19200pbs, 8 Bits with ODD Parity 19200, e, 8, 1, p 19200pbs, 8 Bits with EVEN Parity		
Firmware Version	To display the version number of Firmware and FPGA code.		
Select Language	To select displayed languages on LCM panel in English, Spanish, Italian, Deutsch, Japanese, Portuguese, Polish, Turkish or French.		English
Select Units	Provide two-unit systems for users convenient.	cm/gram; inch/oz	Metric
Scale Length Scale Width	To adjust the scale of media length and width that may cause by the thickness of the media. The Denominator is the actual length, and the Numerator is the ideal length measured from the resultant. For example, cutting a line with 500.0 mm length. The procedure as follows: 1. Press the [LEFT ARROW] to choose the Numerator and select 500.0 mm, 2. Cut the length by sending a graph file, 3. Measure the length then use the [RIGHT ARROW] key to choose the Denominator, then 4. Press [UP ARROW /DOWN ARROW] to change the values of the actual length.		

Chapter 4 Operation

4.1 Media Loading

4.1.1 Loading the Sheet Media

To load the media properly, please follow the procedures listed below:

Pull the lever upward to raise the pinch rollers. (Figure 4-1)

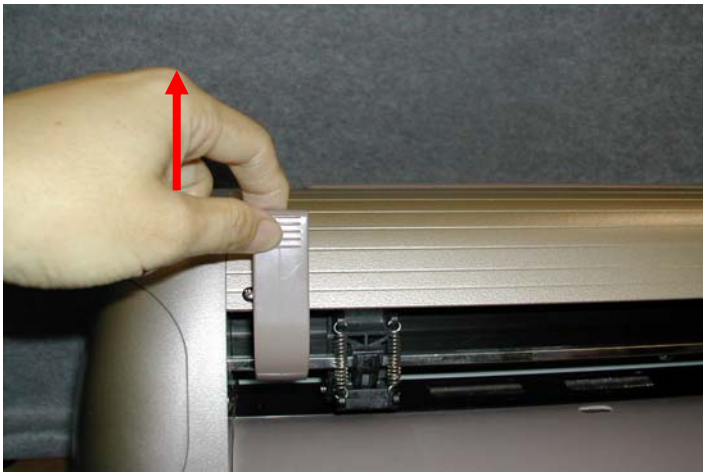


Figure 4-1

Load your media on the platen and slide it under the pinch rollers from either the front side or the backside. The **alignment rulers** on the platen extension will help you to adjust the media precisely.

> **Note:**
> Be sure that the media must be covered by the paper sensors on the platen when loading the media. At least one of the two paper sensors should be covered. Once the media covers the sensor, the cutting plotter will size width and length of media automatically.

Then move the pinch rollers manually to the proper position. Be sure the pinch rollers must be positioned above the grid drum. The **white marks** on top trail will help you position pinch rollers when media on the platen. (Figure 4-2)

Figure 4-2

Push the lever downward to lower down the pinch rollers.

Turn on the power; the machine will be initialized. Then follow the instruction of LCM to measure the size of the media.

Note:
Move the pinch roller by applying force at the rear portion of the pinch roller support. Do not move it by holding its front rubber roller.

Figure 4-3 correct way to move pinch rollers

4.1.2 Loading the Roll Media

Firstly, put the roll media guide bushes on two roll holders. (Figure 4-4)

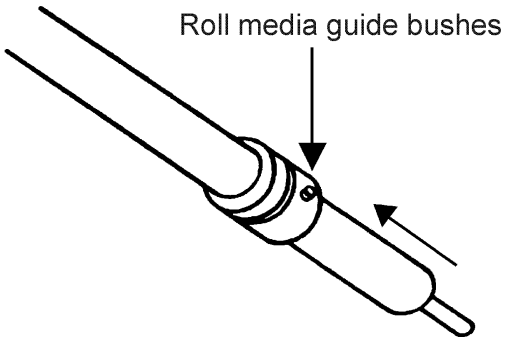


Figure 4-4

Option A

Insert the two roll holders into the roll media support set, and then place the roll media directly between the two roll holders. (Figure 4-5)

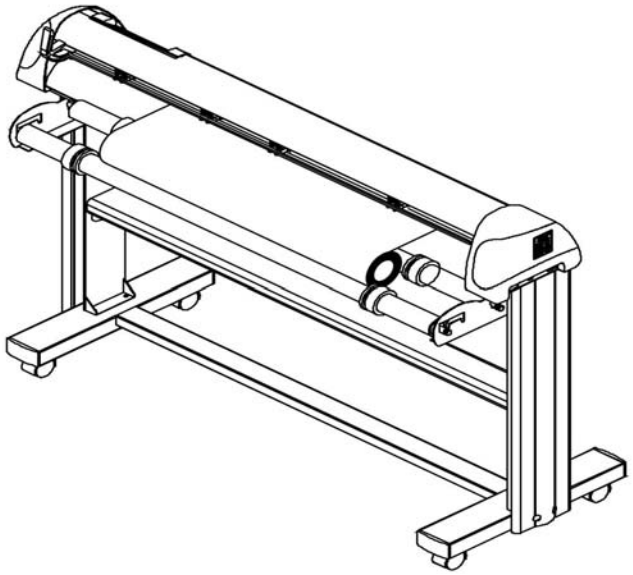


Figure 4-5

Option B (Use the media flange)

1. Insert a roll media flange at the end of each roll media and tighten the thumbscrew until the roll media is firmly gripped. (Figure 4-6)

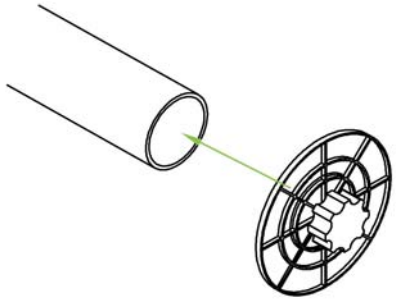


Figure 4-6

2. Then put the roll media on the roll holders. Adjust the position of the roll media ensure that the media flange is able to run in the groove of media guide bushes. (Figure 4-7)

Figure 4-7

3. Loading the media on the platen. After loading the roll media, flatten the media on the platen and hold the front edge of the roll media firmly.(Figure 4-8)

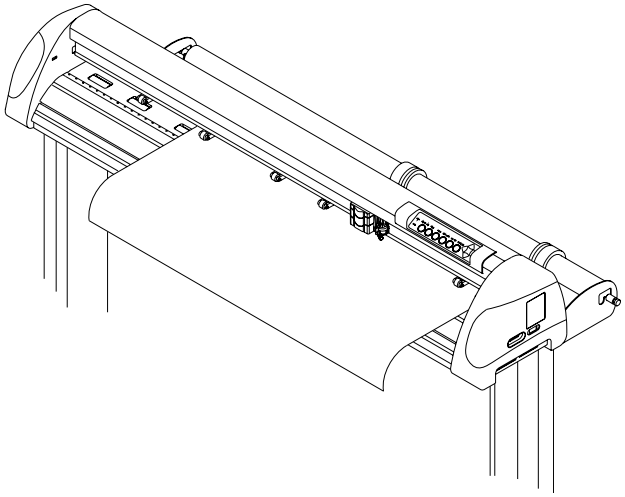


Figure 4-8

4. Then turn the roll downward to make an equal tension across the media. (Figure 4-9)

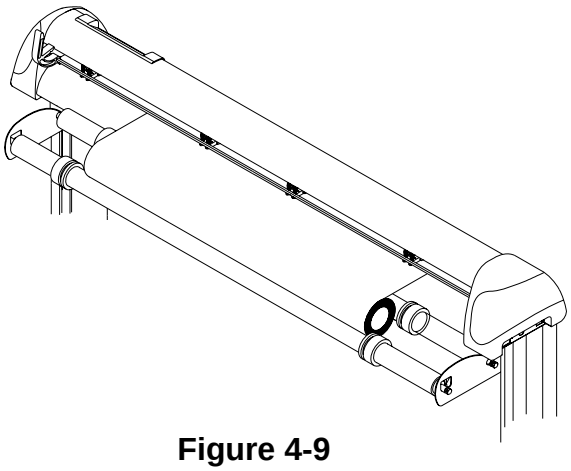


Figure 4-9

5. Move the pinch rollers to the precise location and be careful that the pinch rollers must be positioned above the grid drums.
6. Push the lever downward to lower down the pinch rollers.
7. Fixes roll media guide bushes on the roll holder to secure the roll media.
8. Turn on the power switch, and the tool carriage will size the media automatically. Then the cutting plotter is ready to work.

9. Unloading media：Reversing steps mentioned above to remove the media.

For the users of Puma III-60, you can also use the “Roll Base” (a standard accessory of Puma III-60) to feed a roll media. Please adjust the position of roll base to get a good cutting result. (Figure 4-10)

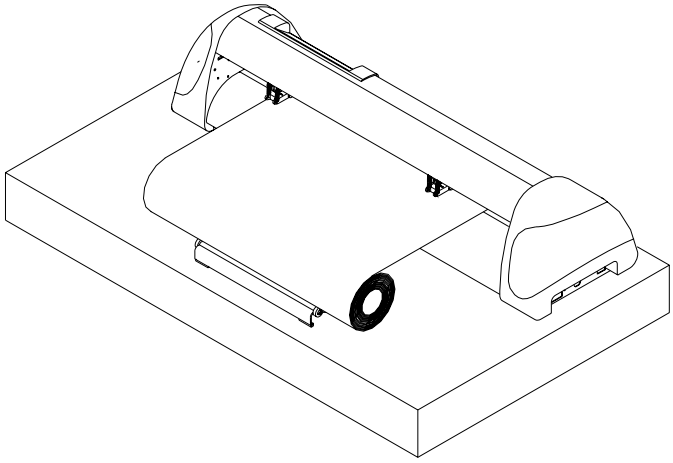


Figure 4-10

4.2 Tracking Performance

In order to achieve the best tracking performance for a long plot, please leave the margin of 0.5mm~25mm in the left and right edges of the media.(Figure 4-11)

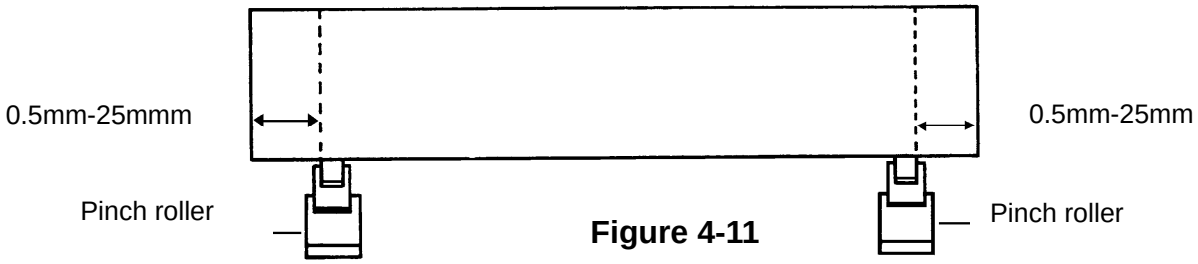


Figure 4-11

4.3 Cutting Force and Offset Adjustment

Before sending your designs from computer to Puma III for cutting, please make “Cut Test” to adjust cutting force and offset value.

The “Cut Test” should be repeated several times until the optimum settings are achieved.

Please follow procedure below to optimum the cutting force and offset settings.

Step1.
After sizing the media, press [CUT TEST] button to select the “Square Cut”, and press [ENTER KEY] to confirm.

The default cutting force and offset value of the cutting test are 80gf and 0.275mm respectively.

Step2.
Press [ARROW KEY] to move the tool carriage to the position where you would like to cut. Then, press the [ENTER KEY] to make a “Cut Test”.

Note: At the same time, the new origin is also set at the cut test position.

Step3.
When the “Cut Test” is completed, a pattern appears (please refer to Figure 4-12). Peel off the pattern to see if it can be easily separated from the media base. If the output result is good, the cutting force is set appropriately. If not or it cut through the back paper of media, press [FORCE KEY] to adjust the tool force until an optimum force is obtained.

Step4.
If the pattern appears to be BB or CC layout (see Figure 4-12), press [OFFSET KEY] to adjust the offset value until AA pattern is shown.

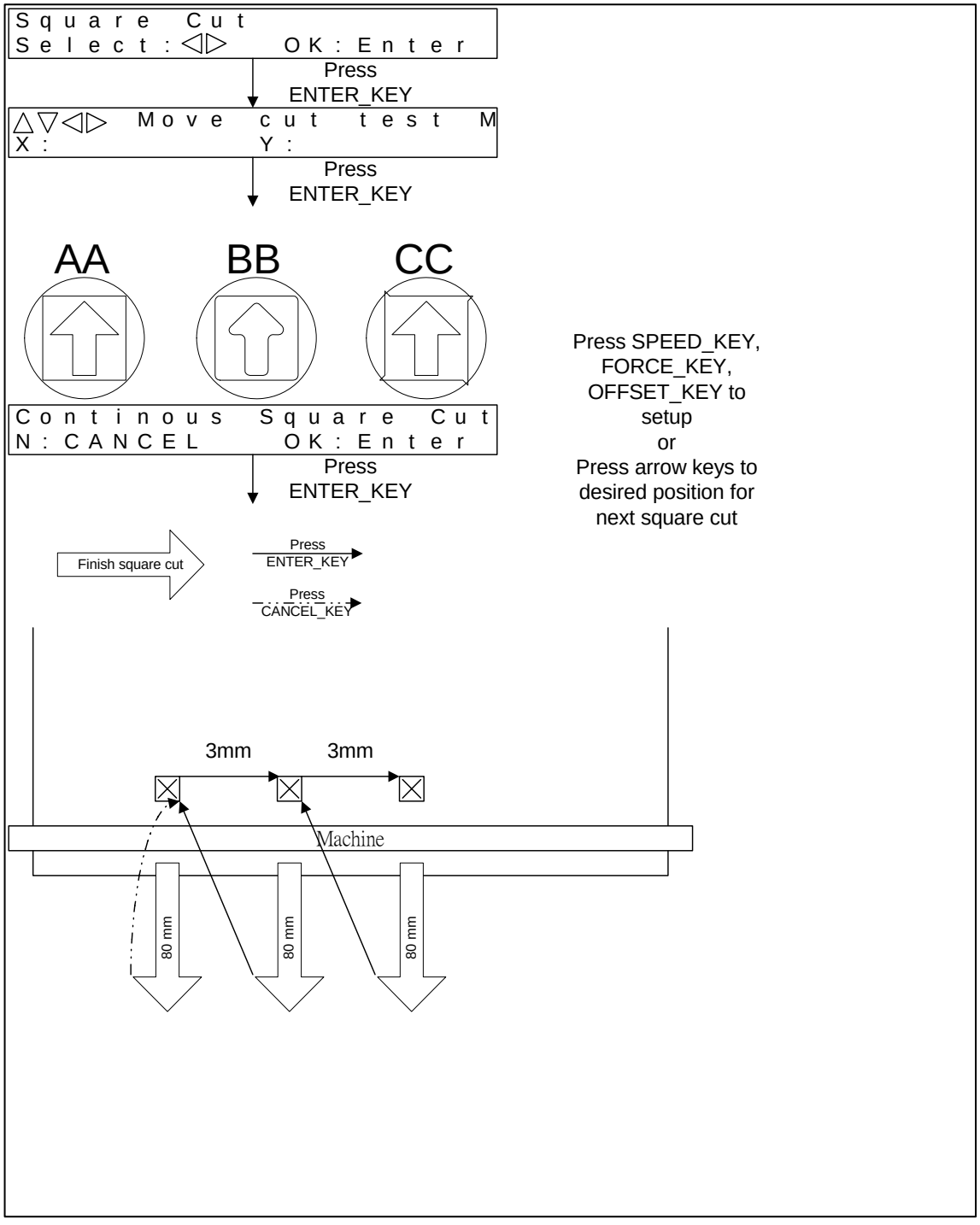

Square Cut
Select : ◁▷ OK : Enter
Press
ENTER_KEY
△▽◁▷ Move cut test M
X : Y :
Press
ENTER_KEY
AA
BB
CC
Continous Square Cut
N : CANCEL OK : Enter
Press
ENTER_KEY
Press SPEED_KEY,
FORCE_KEY,
OFFSET_KEY to
setup
or
Press arrow keys to
desired position for
next square cut
Finish square cut
Press
ENTER_KEY
Press
CANCEL_KEY
3mm
3mm
Machine
80 mm
80 mm
80 mm

Figure 4-12

4.4 When Completing the Cutting Job

After completing the cutting job, raise the sheet-loading lever, and then remove the material. You can also cut off the finished job by the Safe Blade (a standard accessory) along the knife guide. (Figure 4-13)

Figure 4-13

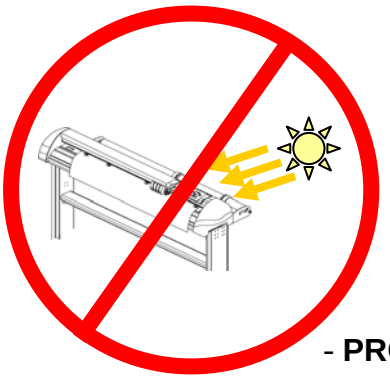
Chapter 5 Accu-Aligning System

5.1 Introduction

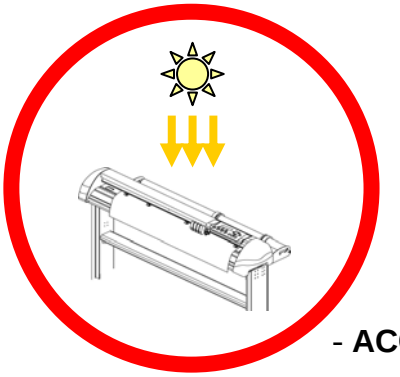
The Puma III series cutting plotters feature a standard Accu-Aligning System (AAS II) to guarantee precise contour cutting quality by detecting the registration marks printed around the graphic.

Notice

- Avoid any kind of light source horizontally illuminating the AAS module.



- **PROHIBITED**



- **ACCEPTABLE**

- DO NOT take off the cover of AAS module while in operation.

- **PROHIBITED**

5.2 AAS Calibrating the System

The AAS system has one calibration procedures to ensure maximum accuracy of AAS operation. To operate the AAS you need to learn about the method of media feeding firstly. (Refer to 4.1 Media Loading.)

5.2.1 Media Calibration

Media Calibration is to ensure the sensor being able to recognize the registration marks. The factory default works on a wide range of materials. However, certain types of materials may not work properly. Performing a media calibration may become necessary while working with such materials to change the sensitivity of AAS for greater reliability. Media calibration adjusts the media feeding according to media type for better accuracy during cutting.

- **When to use**

  We suggest white media for best cutting result. It is not necessary to perform media calibration every time unless the registration marks on the printed media become undetectable in AAS sensing process.

5.2.2 AAS Calibration

The first registration mark is designed to be different in order to identify the origin for AAS auto-detection. The following precaution must be aware for registration marks to be read automatically.

- Type of media
- Registration mark pattern
- Reading range required for detection the registration marks
- Position for registration marks and medium

The registration marks have to be:

- Created by cutting software like SignPal or GCC CorelDRAW plug-in
- In black color
- “L” Mark Length: 10mm~50mm, suggested 25 mm
- “L” Mark Thickness: 1mm~2mm, suggested 1 mm
- Margin: 1mm~50mm, suggested 5 mm

The cutter can not detect the marks while:

- Cutter carriage is not located near the outside area of first mark before detecting (See the picture in page 5-7 for auto-detecting area of first mark.)
- Medium thickness is more than 0.8mm
- Transparent medium is used

- Non-monochrome drawing. The marks can't be read if is printed on colored medium
- Dirty or creased medium surface

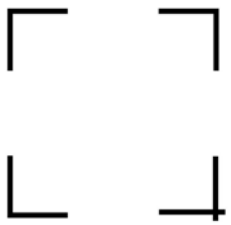
5.2.3 AAS II on Puma III

There are three types of AAS II mark patterns: 4-Point Positioning, Segmental Positioning, and Multiple Copies. Note that before print out your designs by inkjet printers, the registration marks have to be created on your graphic designs by cutting software like SignPal, EasySign or GCC CorelDraw plug-in. Hand-made marks or drawings won't be reorganized by GCC cutting plotters. For more details about registration mark setting in cutting software, please refer to '**Appendix A-3** : CorelDraw Plug-In Instruction", '**Appendix A-4** : SignPal 8.5 Instruction' and '**Appendix A-5** : EasySIGN Instruction'.

1. **4-Point Positioning**

   This is the basic mark pattern that AAS II will auto detect four registration marks and contour cut images inside those marks.

   - Command: Esc.D1;(XDist);(YDist):
   - Layout: 4 L-shaped marks at the 4 corners around the design



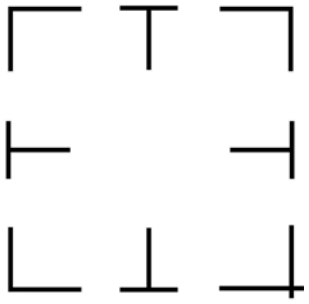
2. **Segmental Positioning**

   In addition to 4 original points, the intermediate registration marks are added on both X axis and Y axis to help contour cut accurately, especially for cutting large images.

   - **Command:** Esc.D2;(XDist);(YDist);(XStep);(YStep):
   - **Layout:**

     In-between distance on X: 200~600mm, default 300mm

     In-between distance on Y: 200-600mm, default 300mm

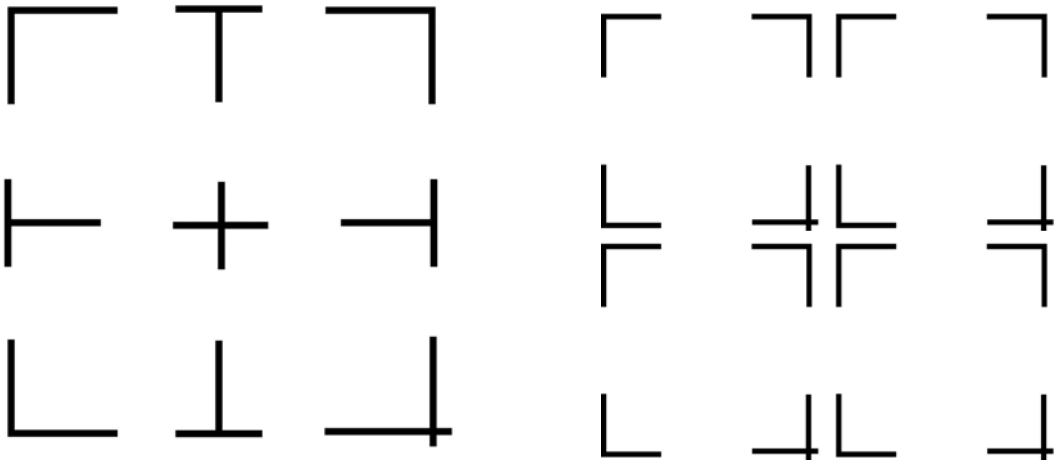


3. Multiple Copies

The function is used to duplicate images to let you cut quantities of images at a time.The AAS II sensor will automatically scan registration marks for each individual image to ensure the contour cutting precision.

- **Command:** Esc.D3;(XCopies);(YCopies);(Space):
- **Layout:**

Condition 1 (Default) Condition 2



5.3 Printer Test

Before performing AAS contour cutting, it's recommended to print out a test file that you can find in the enclosed Installation CD to make sure the AAS II cutting accuracy of Puma III.

There are two testing files for AASII:

1. AAS II_X_Y_Offset_Caberation_A4 .eps (A4 size)
2. AAS II_X_Y_Offset_Caberation_600_600 .eps (Default setting, it is recommended for testing)

- Print out the testing graphic. (Please use high precision printer)
- Load the graphic to Puma IIIand sent the file to test the cutting job
- If there is any adjustments had to be made, you can change the offset value by following the steps:
  - ∗ Measure the offset values from the printed line and the actual cutting line.
  - ∗ Enter the AAS Offset under MISC function for the values you just measured, then press Enter
  - ∗ Test the cutting again

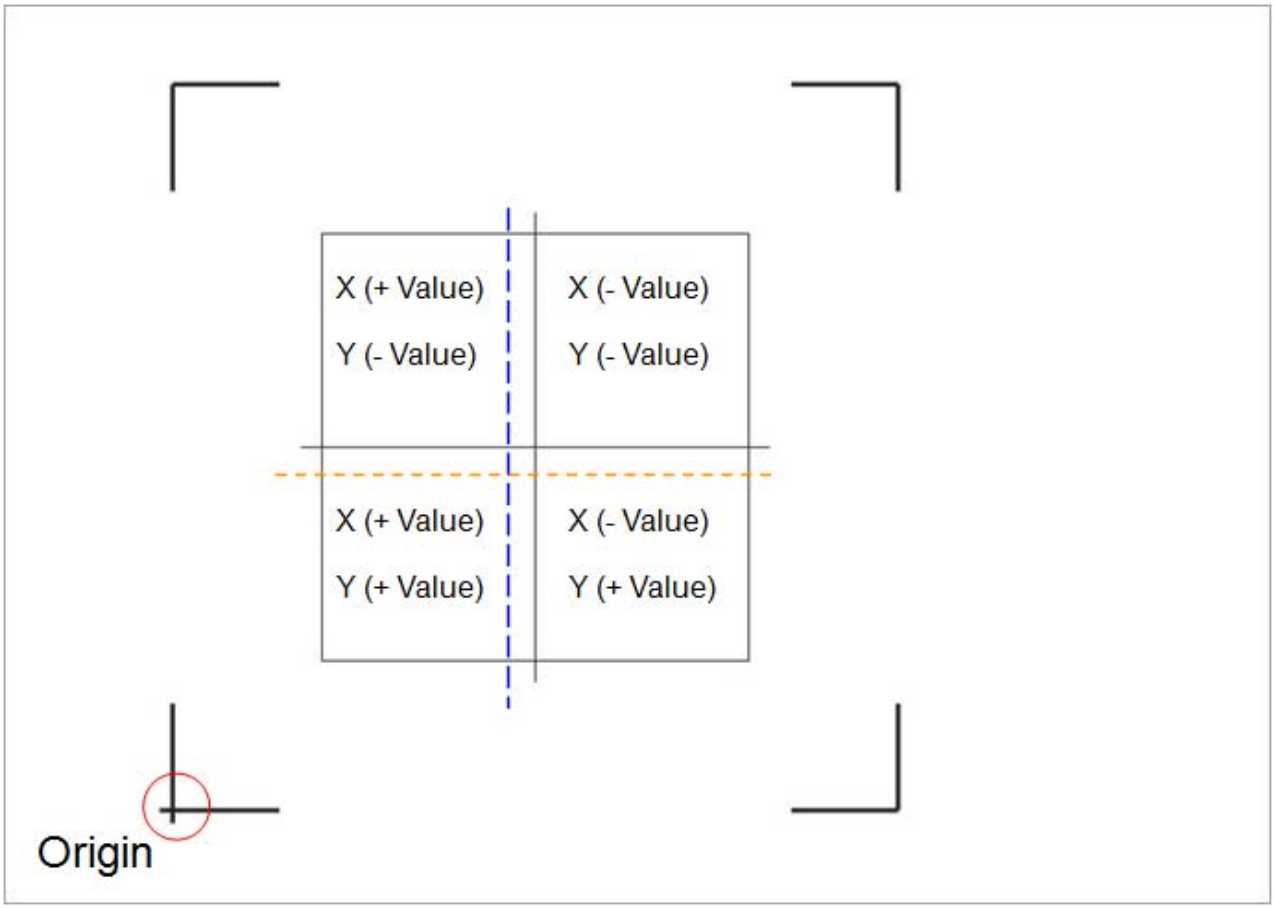
∗ AAS II offset X and Y value is defined as following:
Horizontal line is defined as X and vertical is defined as Y

∗ When the actual cutting line and the printed line need to be changed towards the direction of origin mark, then simply add the ***negative*** value of the offset. If the direction is from the opposite of the origin mark, then enter ***positive*** values for the offset. This method apply on both X and Y axle.

For example:

If the values set in cutter is X: 0.50 mm Y 0.50 mm and the measurement is X1:-0.25 mm Y 1:+0.25 mm. (In following figure, the Blue Line refers to the Y Value, and the Red Line refers toe the X value.)

We need to adjust AASII offset X new : (X + X1) Y new : (Y + Y1) which means X new : 0.25 mm Y new : 0.75, then save the set new value to cutter.



Note:

- Before adjusting the AAS II settings, please proceed scaling for width and length.
- The blade offset value isn't set for this test graphic, please set it according to the blade you use.
- If you have any question, please contact us or your local distributor for assistance.

5.4 Contour Cutting

For accurate contour cutting with AAS function, please proceed the following steps:

Step 1 **Creating Graphics**

■ Create the graphic that you want to print and cut in your software.

■ Create a contour for cutting around the graphic.

TIPS1: Leave some space between the graphic and contour line.

TIPS2: Create the contour in a separate layer and assign a different color for it.

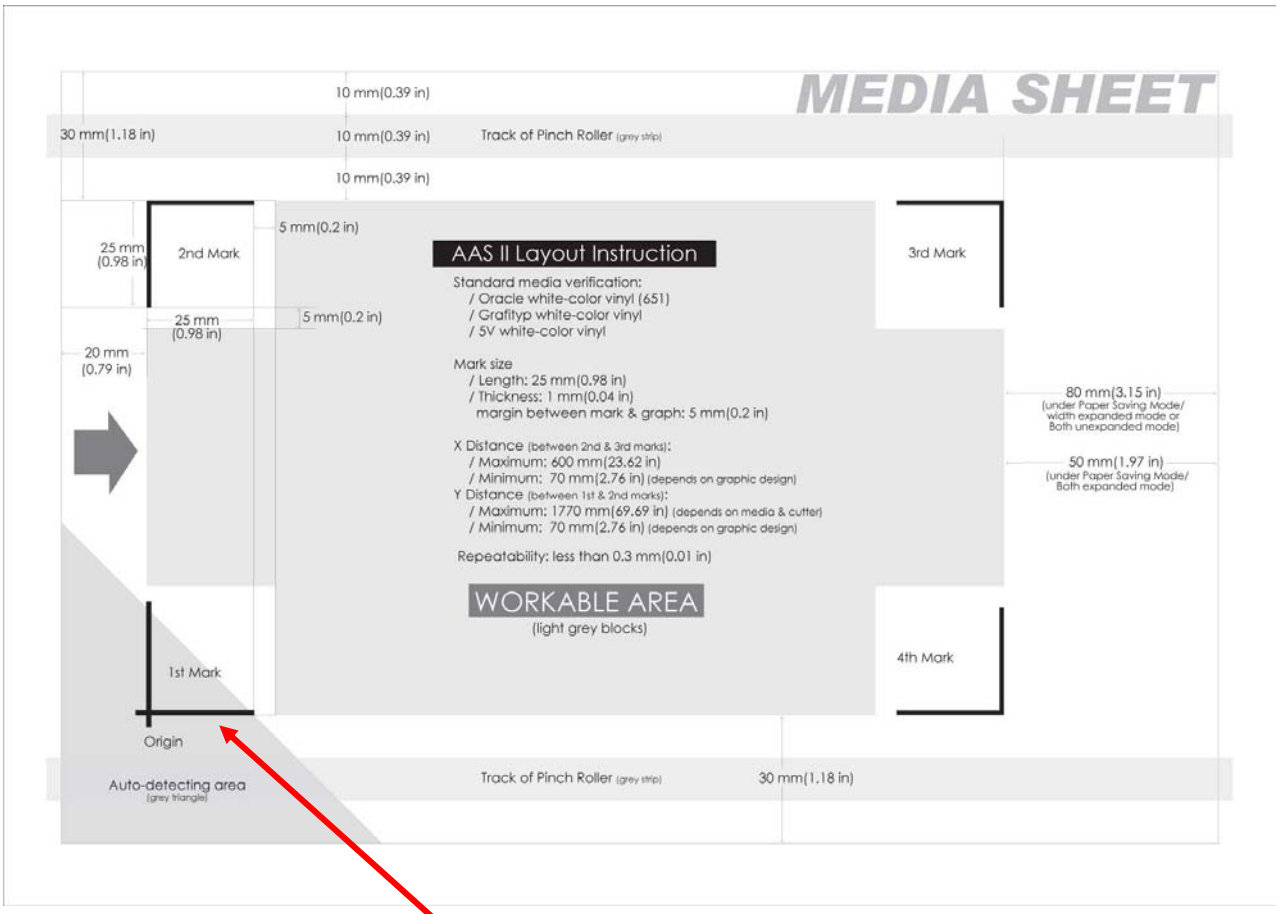
■ Add registration marks around the graphic.

Note:

The Multiple Copies function is also available. It automatically copy the graphic and registration marks.

Step 2 Placing the Registration Marks

■ The AAS Layout Instruction:


MEDIA SHEET
10 mm(0.39 in)
30 mm(1.18 in)
10 mm(0.39 in)
Track of Pinch Roller (grey strip)
10 mm(0.39 in)
5 mm(0.2 in)
25 mm (0.98 in)
2nd Mark
AAS II Layout Instruction
3rd Mark
Standard media verification:
/ Oracle white-color vinyl (651)
/ Grafityp white-color vinyl
/ 5V white-color vinyl
25 mm (0.98 in)
5 mm(0.2 in)
20 mm (0.79 in)
Mark size
/ Length: 25 mm(0.98 in)
/ Thickness: 1 mm(0.04 in)
margin between mark & graph: 5 mm(0.2 in)
80 mm(3.15 in)
(under Paper Saving Mode/ width expanded mode or Both unexpanded mode)
X Distance (between 2nd & 3rd marks):
/ Maximum: 600 mm(23.62 in)
/ Minimum: 70 mm(2.76 in) (depends on graphic design)
50 mm(1.97 in)
(under Paper Saving Mode/ Both expanded mode)
Y Distance (between 1st & 2nd marks):
/ Maximum: 1770 mm(69.69 in) (depends on media & cutter)
/ Minimum: 70 mm(2.76 in) (depends on graphic design)
Repeatability: less than 0.3 mm(0.01 in)
WORKABLE AREA
(light grey blocks)
4th Mark
1st Mark
Origin
Auto-detecting area
(grey triangle)
Track of Pinch Roller (grey strip)
30 mm(1.18 in)

* Auto-detection function on the 1st mark covers the grey area

■ Suggested 30mm margin on both left and right sides of media sheet.

■ Suggested 20~30mm margin on top of media sheet, and at least 50mm margin on the bottom edge to prevent sheets dropping or any error occurred while media sizing.

Step 3 Print the Graphics

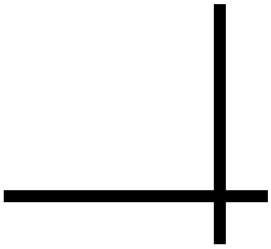
■ Print the graphic and the marks with your printer

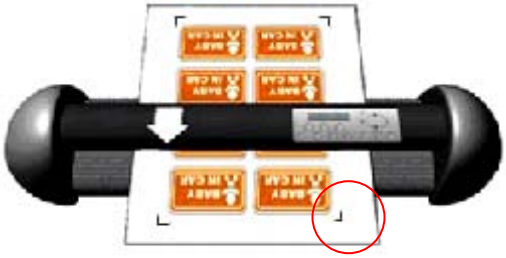
(Scaling = 100%).

■ When printing on a roll media, make sure the orientation as following:

Step 4 **Load the printout onto cutter**

■ The Origin Mark is is different from the rest registration marks. Please make sure the media is fed with correct direction.





Step 5 **Cut the Contour**

■ Send out the command from software to perform the contour cutting job.

5.5 Tips for AAS

For getting better results of contour cutting, there are some tips below for your reference.

- Keep light sources simple and avoid illuminating from the sides of cutter.
- Before operating AAS, change the maximum paper size in Puma IIIdriver property.
  STEP 1 Find the **Puma III model** in the “Printer & Fax” folder of your PC.
  STEP 2 Open the Properties window and select the “Paper” tab.
  STEP 3 Change the maximum Paper Size of X to **1200**mm.
- Adjust the cutting speed to between 300~600mm/sec.
- Avoid the registration marks locating on the tracks of pinch rollers.

Chapter 6 Basic Maintenance

This chapter explains the basic maintenance (i.e. cleaning the cutting plotter) required for the cutting plotter. Except for the below mentioned, all other maintenance must be performed by a qualified service technician.

6.1 Cleaning the Cutting Plotter

In order to keep the cutting plotter under good condition and best performance, you need to clean the machine properly and regularly.

Precaution in Cleaning

- ✧ Unplug the cutting plotter before cleaning
- ✧ Never use **solvents, abrasive cleaners or strong detergents** for cleaning. They may damage the surface of the cutting plotter and the moving parts.

Recommended Methods

- ❖ Gently wipe the cutting plotter surface with a lint-free cloth. If necessary, clean with a damp cloth or an alcohol-immersed cloth. Wipe with water to rinse off any residue and dry with a soft, lint-free cloth.
- ❖ Wipe all dust and dirt from the tool carriage rails.
- ❖ Use a vacuum cleaner to empty any accumulated dirt and media residue beneath the pinch roller housing.
- ❖ Clean the platen, paper sensors and pinch rollers with a damp cloth or an alcohol-immersed cloth, and dry with a soft, lint-free cloth.
- ❖ Wipe dust and dirt from the stand.

6.2 Cleaning the Grid Drum

- Turn off the cutting plotter, and move the tool carriage away from the area needed to be cleaned.
- Raise the pinch rollers and move them away from the grid drum for cleaning.
- Use a bristle brush (a toothbrush is acceptable) to remove dust from the drum surface. Rotate the drum manually while cleaning. Refer to Figure 6-1

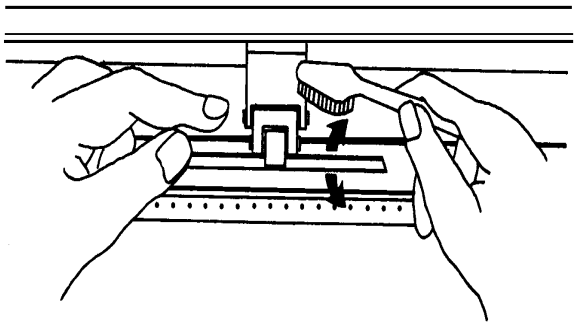


Figure 6-1

6.3 Cleaning the Pinch Rollers

If the pinch rollers need a thorough cleaning, use a lint-free cloth or cotton swab to wipe away the accumulated dust from the rubber portion of the pinch rollers. To prevent the pinch rollers from rotating while cleaning, use finger to hold the pinch rollers not to rotate.

If needed to remove the embedded or persistent dust, use the lint-free cloth or cotton swab moistened with rubbing alcohol.

Note: The daily maintenance of your cutting plotter is very important. Be sure to clean up the grid drum and pinch rollers regularly for better cutting accuracy and output quality.

Chapter 7 Trouble Shooting

This chapter is to help you correct some common problems you may come across. Prior to getting into the details of this chapter, please be sure that your application environment is compatible with the cutting plotter.

> **Note:**
> Before having your cutting plotter serviced, please make sure that the malfunction is in your cutting plotter, not the result of an interface problem or a malfunction in your computer or a software problem.

Why is the cutting plotter not functioning?

Possible Causes:

7.1 Non-Operational Problems

Check the following first:

- Does the AC power cord plug in properly?
- Does the AC power cord connected to the power connector properly?
- Does the power LED still illuminate?

Solutions:

If the LCM is able to display the message, the cutting plotter should be in a normal condition. Switch off the cutting plotter and turn it on again to see if the problem still existing.

If the LCM is not able to display any message, contact the technician from your dealer.

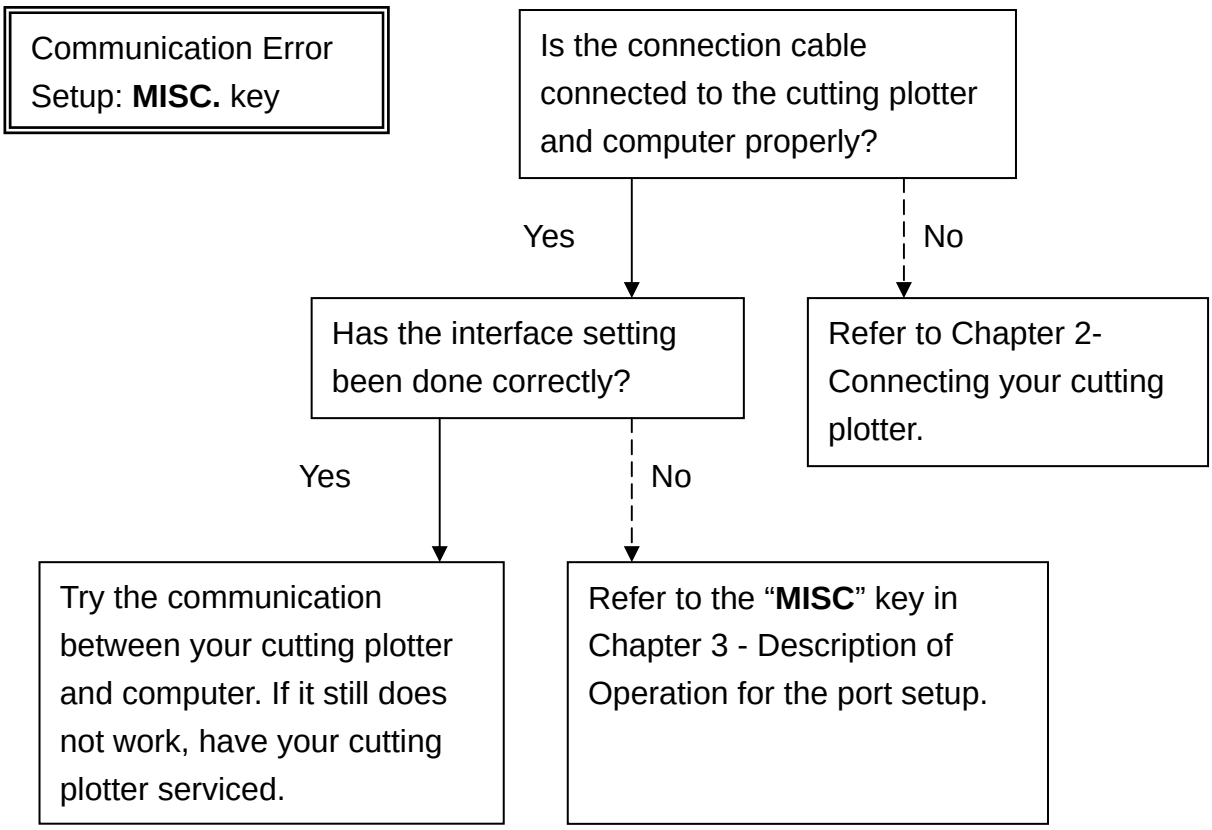
7.2 Operational Problems

Some mechanical problems or failure during operation will cause some problems. The error messages shown on the LCM present the problem first, and followed by recommended actions. If the problem still exists after the recommended actions have been done, have your cutting plotter serviced.

Error, Check Media Or Drum or X Motor	This message indicates that there might be a problem on the **X axis**. Check if the drum is working well and if the media is well loaded. Correct the problem and re-power on to reboot system.
Error, Check Media Or Y Motor	This message indicates that there might be an obstruction to carriage relating to a problem on the **Y axis**. Correct the problem and re-power on to reboot system.
Error, Check Carriage Sensor or VC Motor	This message indicates that the blade up/down sensor malfunction. Re-power on to re-boot system. If the problem still exists, find a serviceman.
Graph Was Clipped. Data In Buffer	This message indicates that the cutting exceeds the cutting limit. Reload larger media or re-scale the plot to a smaller size; then press the key followed by the display of LCM to continue.

7.3 Cutting Plotter/Computer Communication Problems

The messages showed below present problems in relation to cutting plotter/computer communication.


Communication Error
Setup: **MISC.** key
Is the connection cable connected to the cutting plotter and computer properly?
Yes
No
Has the interface setting been done correctly?
Refer to Chapter 2- Connecting your cutting plotter.
Yes
No
Try the communication between your cutting plotter and computer. If it still does not work, have your cutting plotter serviced.
Refer to the "**MISC**" key in Chapter 3 - Description of Operation for the port setup.

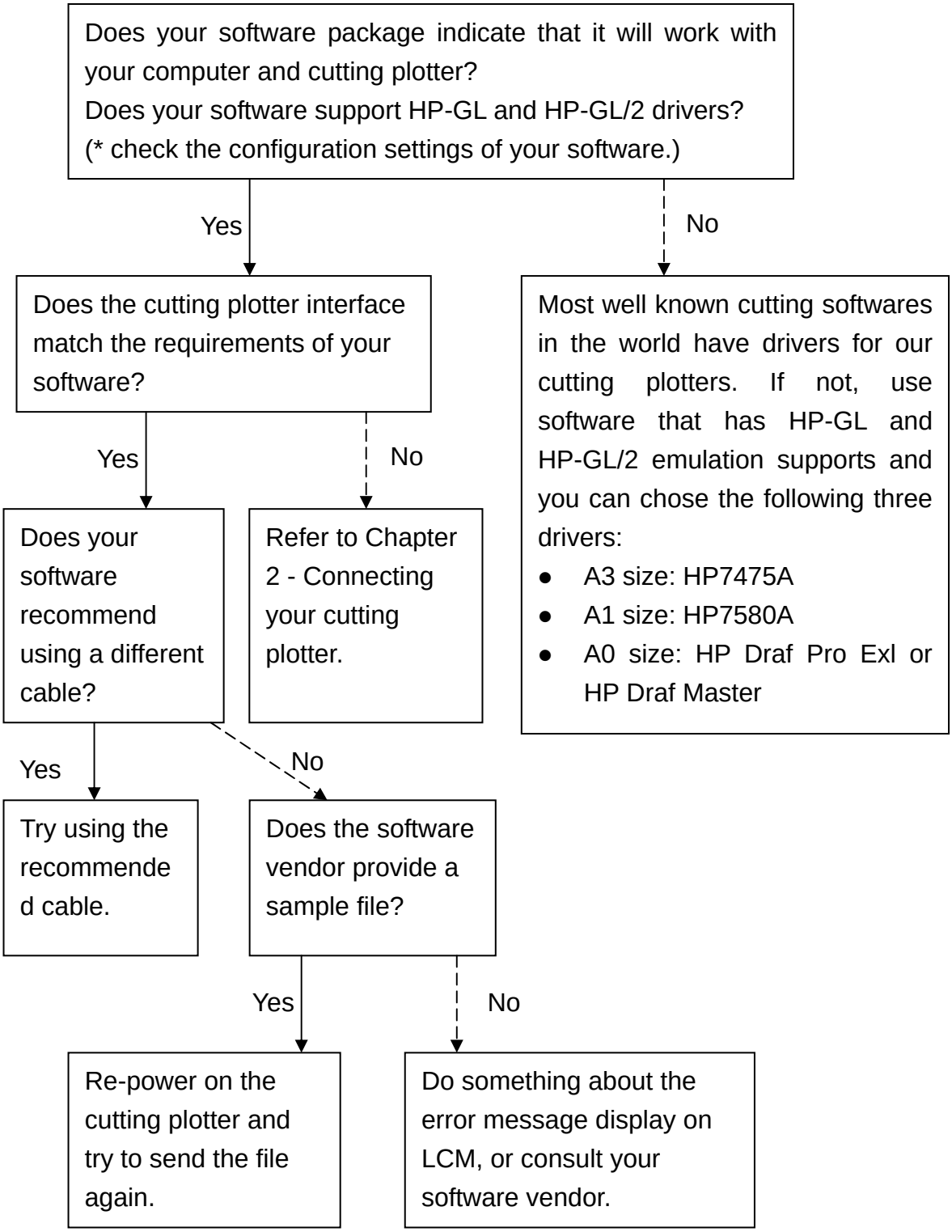
Note:
The computer also needs to set up compatible communication parameters to the cutting plotter set up.

HP-GL/2 Cmd. Error

If your cutting plotter can not recognize the HP-GL/2 or HP-GL commands, please check the HP-GL/2 or HP-GL commands applied to your cutting plotter are used properly.

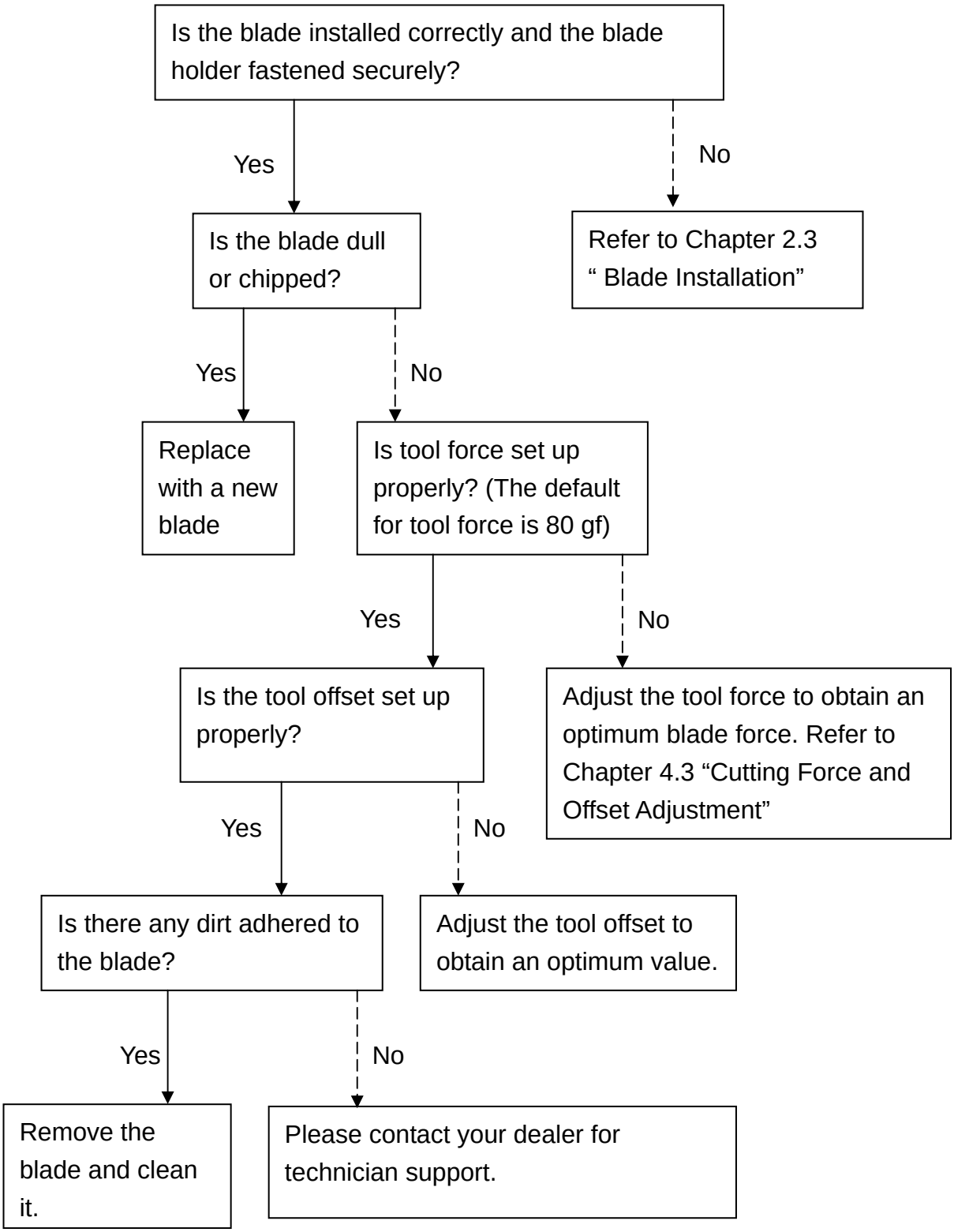
7.4 Software Problems

Check the following first:


Does your software package indicate that it will work with your computer and cutting plotter?
Does your software support HP-GL and HP-GL/2 drivers?
(* check the configuration settings of your software.)
Yes
No
Does the cutting plotter interface match the requirements of your software?
Most well known cutting softwares in the world have drivers for our cutting plotters. If not, use software that has HP-GL and HP-GL/2 emulation supports and you can chose the following three drivers:
A3 size: HP7475A
A1 size: HP7580A
A0 size: HP Draf Pro Exl or HP Draf Master
Yes
No
Does your software recommend using a different cable?
Refer to Chapter 2 - Connecting your cutting plotter.
Yes
No
Try using the recommende d cable.
Does the software vendor provide a sample file?
Yes
No
Re-power on the cutting plotter and try to send the file again.
Do something about the error message display on LCM, or consult your software vendor.

7.5 Cutting Quality Problems

Note: The daily maintenance of your cutting plotter is very important. Be sure to clean up the grid drum and pinch rollers regularly for better cutting accuracy and output quality.


Is the blade installed correctly and the blade holder fastened securely?
Yes
No
Is the blade dull or chipped?
Refer to Chapter 2.3 “ Blade Installation”
Yes
No
Replace with a new blade
Is tool force set up properly? (The default for tool force is 80 gf)
Yes
No
Is the tool offset set up properly?
Adjust the tool force to obtain an optimum blade force. Refer to Chapter 4.3 “Cutting Force and Offset Adjustment”
Yes
No
Is there any dirt adhered to the blade?
Adjust the tool offset to obtain an optimum value.
Yes
No
Remove the blade and clean it.
Please contact your dealer for technician support.

Puma III Specification

Model Name/No.	P3-60	P3-132S
Operational Method	Roller-Type	
Max. Cutting Width	590mm(23.23in)	1300mm(51.18in)
Max. Cutting Length	50m(164ft)	
Max. Media Loading Width	719mm(28.3in)	1470mm(57.87in)
Min. Media Loading Width	70mm(2.76”)	
Acceptable Material Thickness	0.8mm (0.03 in)	
Number of Pinch Rollers	2	4
Motor Drive	DC Servo Control	
Cutting Force	400 g	
Max. Cutting Speed	Up to 600 mm /sec (23.62 ips)	
Offset	0~1.0 mm (with an increase of 0.025 mm)	
Mechanical Resolution	0.009 mm (0.00035")	
Software Resolution	0.025 mm (0.00098")	
Distance Accuracy	0.254 mm or 0.1% of move, whichever is greater	
Repeatability	±0.1mm up to 3 meters (* certified media)	
Memory Buffer	4MB	
Interfaces	USB 1.1 & Parallel (Centronics) & Serial (RS-232C)	
Type of Command	HP-GL, HP-GL/2	
Control Panel	LCD (20 digits x 2 lines), 14 Keys, 1 Power LED	
Dimension (HxWxD) mm	220x 879x258 8.67 x34.61x10.16in	1065 x 1632 x 620 (including stand) 41.93 x62.25x24.41in
Net Weight	13kg / 28.6lb	53 kg / 116.4 lb
Stand	Optional	Standard
Power Supply	AC 100-240V, 50~60 Hz (auto switching)	
Power Consumption	Max.110watts	
Environment Temperature	10℃~35℃ / 50℉~95℉ (operating)	
Environment Humidity	25%~ 75% relative humidity (operating)	

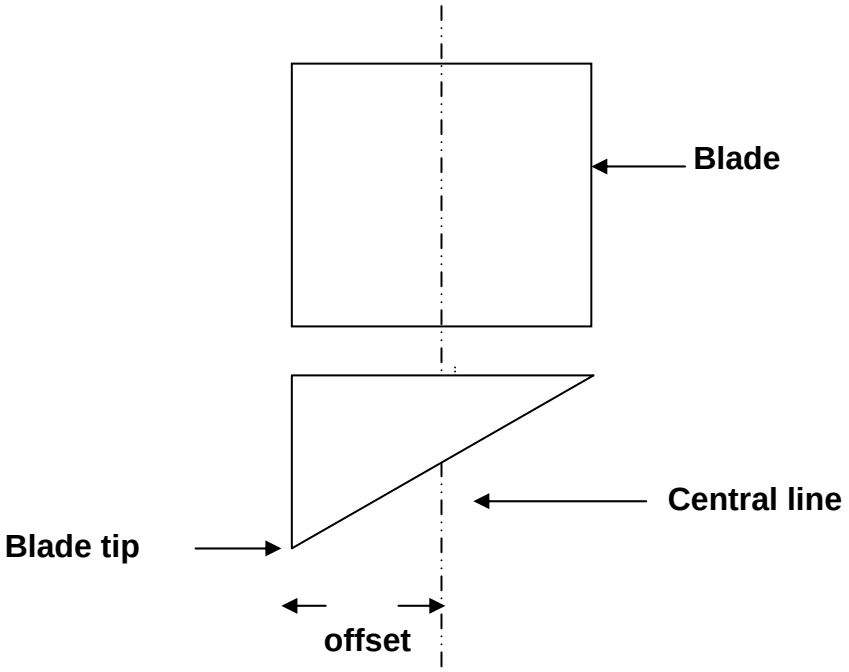
- The specification and data sheet may vary with different materials used. In order to obtain the best output quality, please maintain the machine regularly and properly.
- GCC reserves the right to change the specifications at any time without notice.

Blade Specification

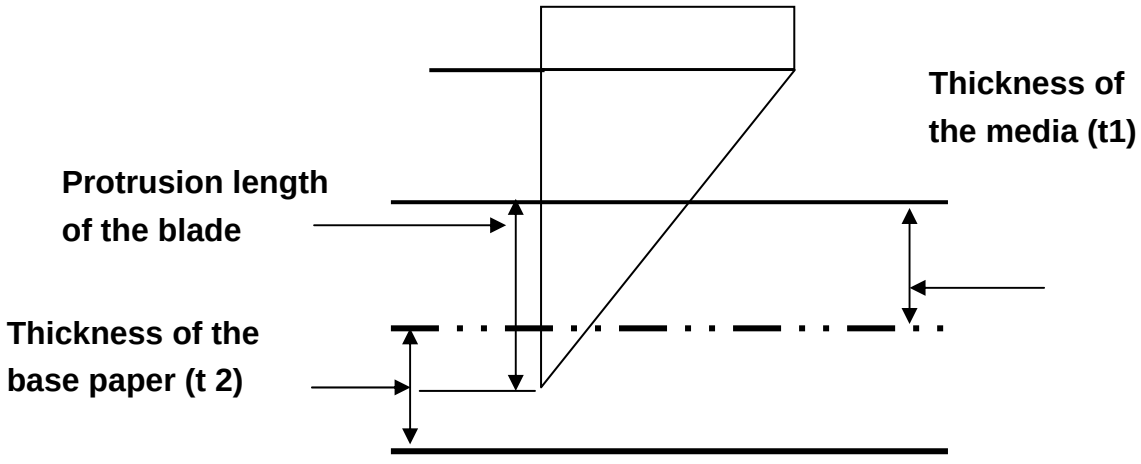
26500057G	For cutting thick fluorescent and reflective vinyl. Also for cutting detailed work in standard vinyl.
	The blade is 45° with **Red Cap**, 0.25 mm offset
26500058G	For cutting reflective vinyl, cardboard, sandblast, flock, and stencil sharp edge.
	The blade is 60° with **Green Cap**, 0.50 mm blade offset
26500059G	For cutting thin sandblast mask and stencil with friction feed or sprocket feed machine.
	The blade is 60° with **Blue Cap**, 0.25 mm blade offset
26500060G	For Cutting small text and fine detail. Sharp blade with smallest offset.
	The blade is 0.175 mm blade offset with **Black Cap**

About the Tool

A generic term referring to the blade that cuts the sheet, the pen that does plotting, and the LED bombsight (option) used for pointing to the reference point.
OFFSET is the distance that the blade tip is displaced from the centerline of the blade.



Protrusion Length of the Blade



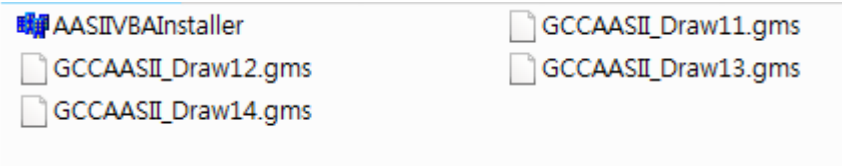
Length of protrusion = t1 + t 2/ 2, but for your convenience you may just make it about 0.3mm ~ 0.5mm beyond the blade holder tip.

CorelDRAW Plug-In Instruction

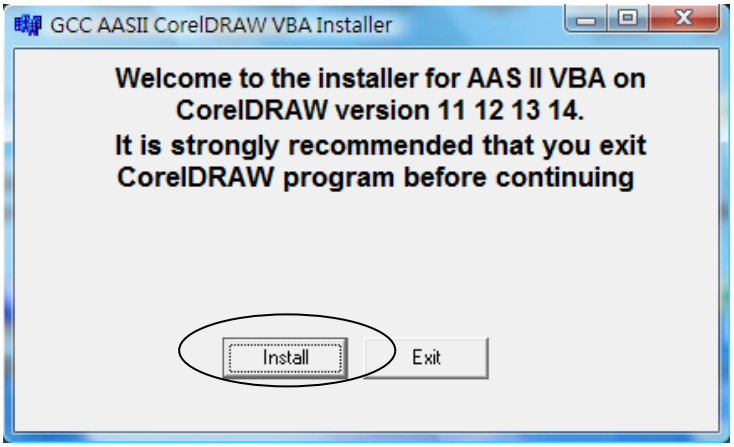
AASII VAB Installer is applicable for CorelDRAW Version 11, 12, 13, 14

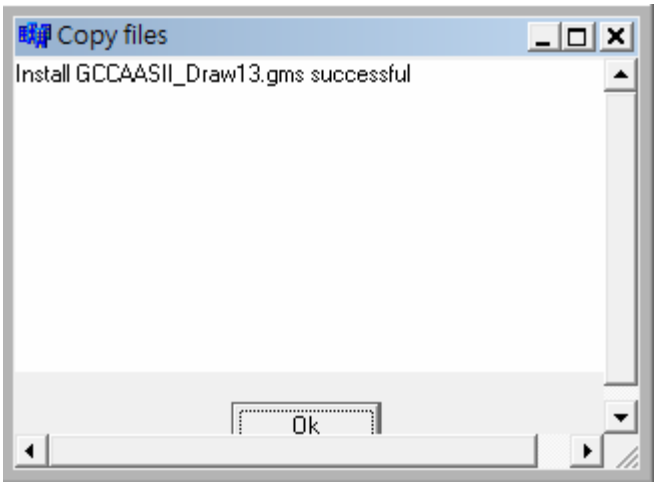
Installation

1. Check the “AAS CorelDraw Installer” folder in Puma III Installation CD, and double click the “AASIIVBAInstaller.exe” file to run the installation program.



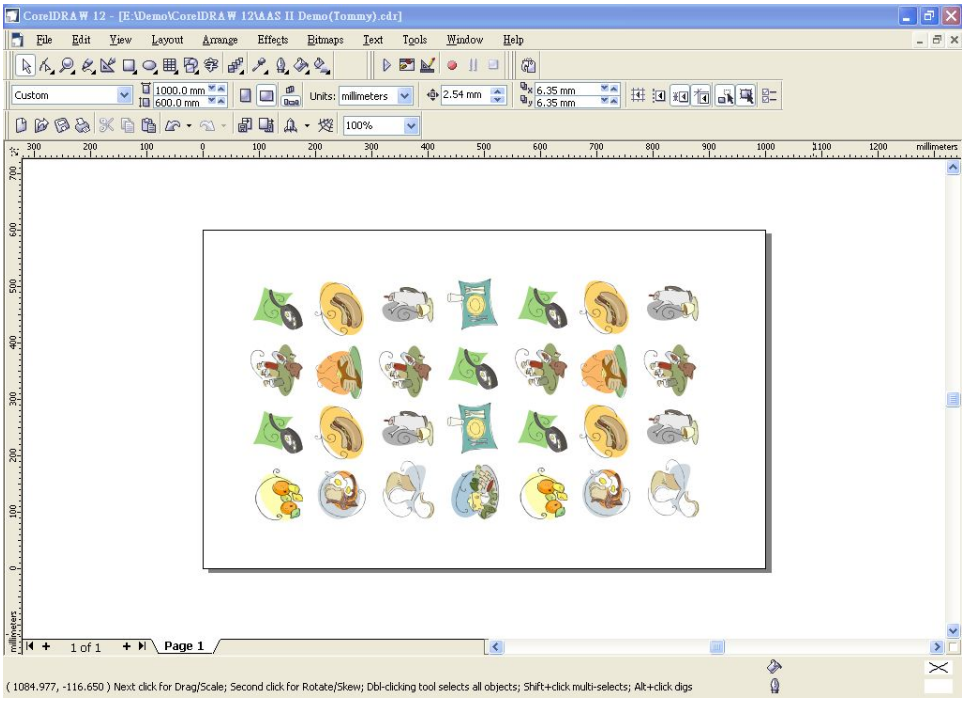
2. Press “Install” button and start to install GCC AASII CorelDRAW VBA.


GCC AASII CorelDRAW VBA Installer
Welcome to the installer for AAS II VBA on CorelDRAW version 11 12 13 14.
It is strongly recommended that you exit CorelDRAW program before continuing
Install
Exit

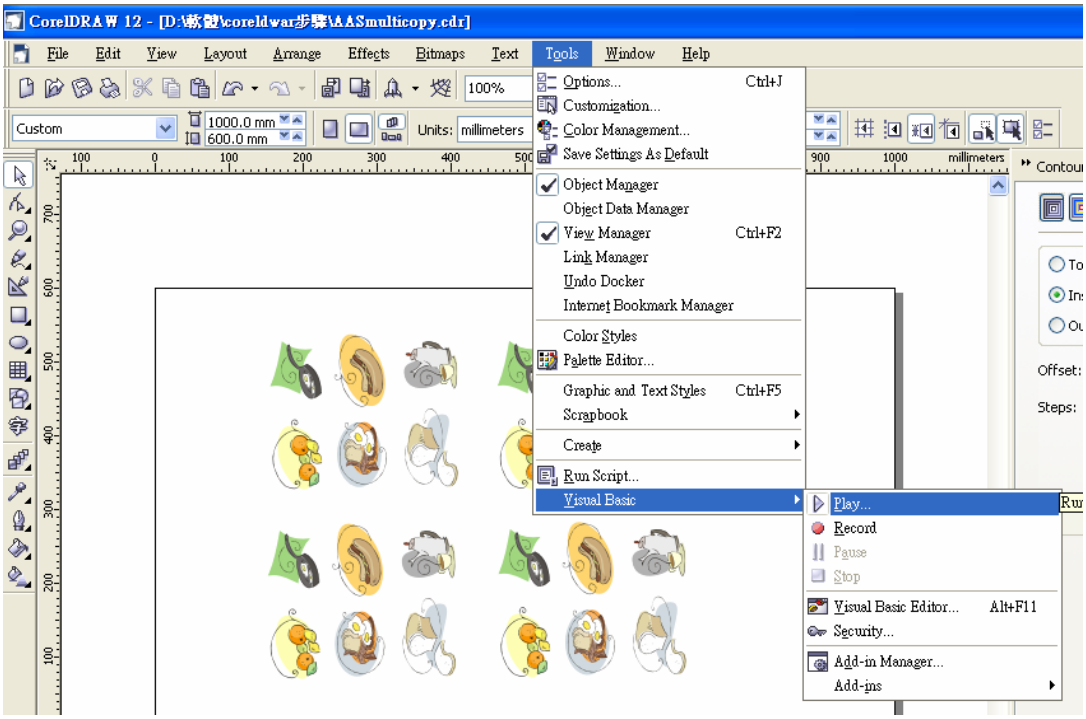


User Instructions

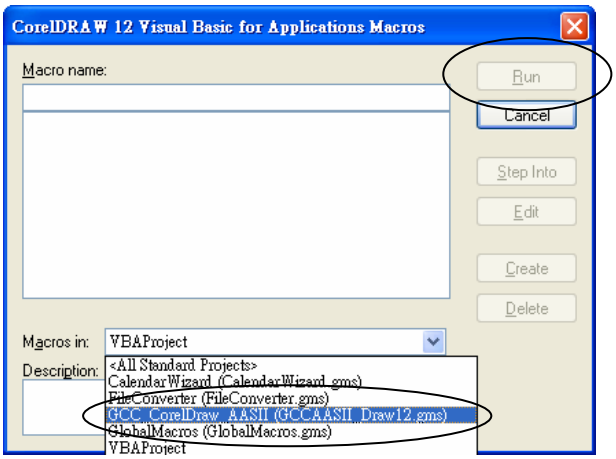
1. Open CorelDRAW, finish editing all the files you wish to plot and select all the image at once.


CorelDRAW 12 - [E:\Demo\CorelDRAW 12\AAS II Demo(Tommy).cdr]
File Edit View Layout Arrange Effects Bitmaps Text Tools Window Help
Page 1
(1084.977, -116.650) Next click for Drag/Scale; Second click for Rotate/Skew; Dbl-clicking tool selects all objects; Shift+click multi-selects; Alt+click digs

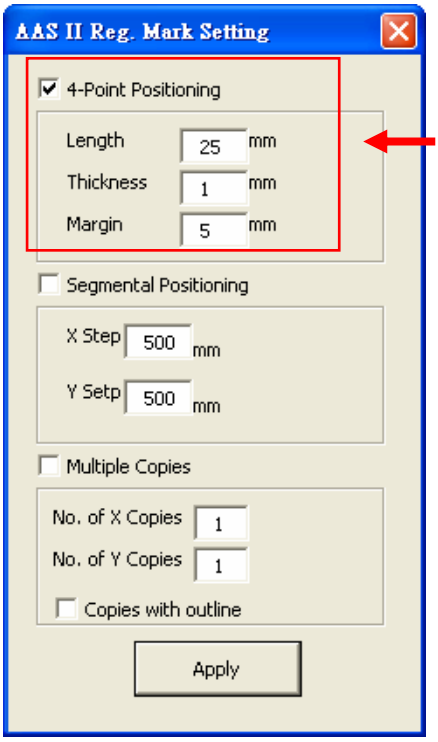
2. Select “Tools→Visual Basic→Play”.



The Visual Basic for Applications Marcos window will pop up.
Select GCC_CorelDraw_AASII (GCCAASII_Draw12.gms) under the “Micros in” manual, and press “Run”.



3. Click on “Apply”.



4-Point Positioning

- Length: The length of marks
  → Range: 10mm~50mm
  → Optimized Setting: 25mm
- Thickness: The line thickness of marks
  → Range: 1mm~2mm
  → Optimized Setting: 1mm
- Margin: The distance between marks and images
  → Range: 1mm~50mm
  → Optimized Setting: 5mm

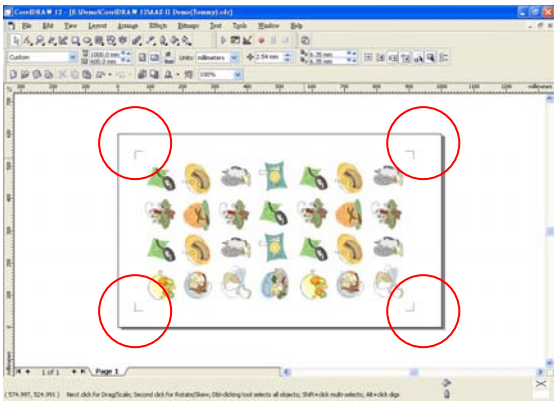
Segmental Positioning

- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
  → Range: 200mm~600mm
  → Optimized Setting: Less than 500mm

Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis
  → Range: 1~50. (The more copies you make, the more time is needed for data transmission.)
  → Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline： To show outlines of image graphics

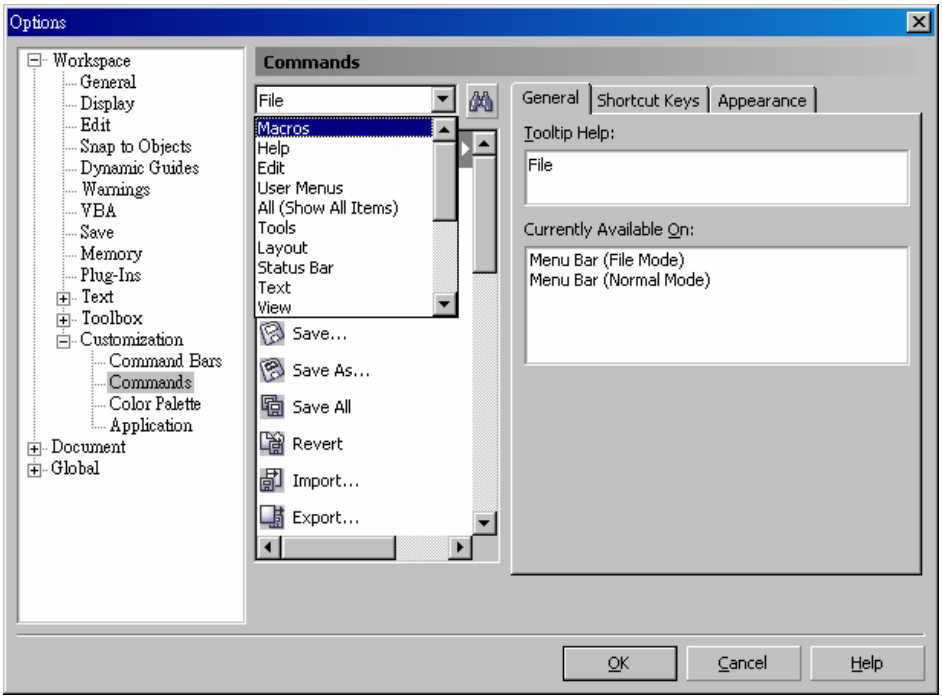
The system will create the necessary 4 marks on the picture.



4. Now you can output the image file directly to Puma III to run the AAS function.

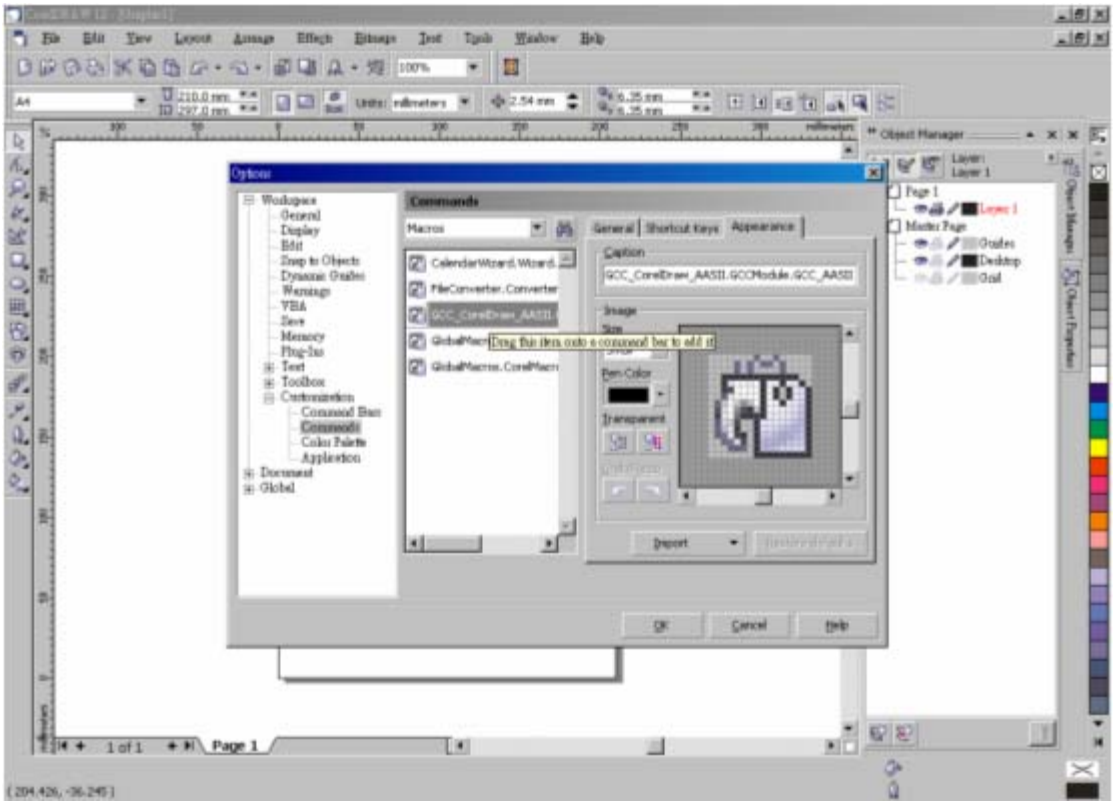
You can also pull out a Hot Icon for the AAS II Plug-in

Step 1: Select “Tools→Customization→Commands→Macros”.



Step 2: Choose【GCC_CorelDraw_AASII.GCCModule.GCC_AASII】and drag it to “commands” bar.

Step 3: If you want to have a different icon, select “Tools→Customization→Commands→ Appearance” to import the graphics. Choose an icon and press OK to finish this setting.


Options
Workspace
General
Display
Edit
Snap to Objects
Dynamic Guides
Warnings
VBA
Save
Memory
Plug-Ins
Text
Toolbox
Customization
Command Bars
Commands
Color Palette
Application
Document
Global
Commands
Macros
General
Shortcut Keys
Appearance
Caption
Image
Size
Pen Color
Transparent
Import
OK
Cancel
Help
Object Manager
Page 1
Layer 1
Master Page
Guides
Desktop
Grid
1 of 1
Page 1

SignPal 8.5 Instruction

The new SignPal 8.5 Software is Windows Vista compatible and the SignPal Expert above versions support the AAS II contour cutting function of Jaguar IV and Puma III cutting plotters.

Different to the previous SignPal 7.6 version, the SignPal 8.5 doesn't come with a keypro dongle, which is replaced by a softkey to simplify the installation procedure. However, please note that the system must be connected to the Internet when launching the SignPal 8.5 software for the first time with softkey. Internet access is required for online validation during the initial installation and for future online validations every 30 days. If the softkey is unable to connect to the Internet within a 30 day period, you will receive a message alerting you that you can only continue working with the software for another 10 days without connecting to the Internet.

For users without Internet or broadband connection, please contact your local distributor to purchase hard keys (keypro dongle) and provide them your softkey ID & password for replacement. Your original softkey ID & password will be invalid after replacement, and the new hard key ID & password can work only with the dongle inserted to your computer. Please note that the softkey and hard key has different user ID number as following:
Soft key IDs are 9xxxxx
Hard key IDs are 5xxxxx

SignPal 8.5 Instruction Index:

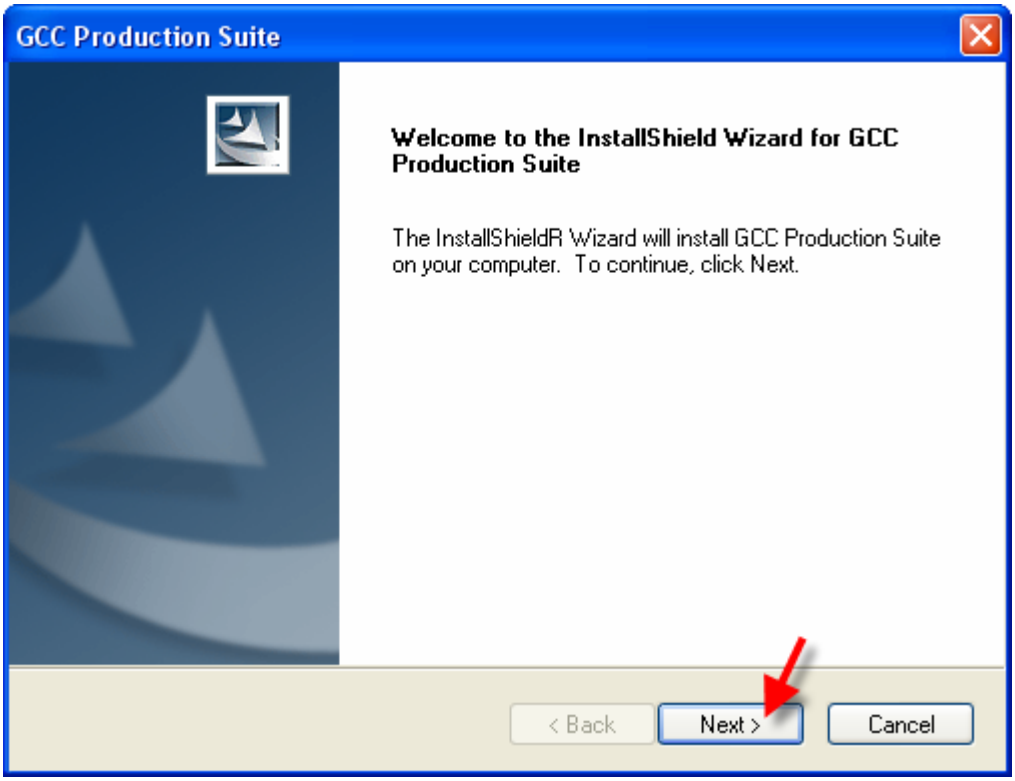
[1] Installing the SignPal 8.5 software…….. P.01
[2] Set up your GCC Cutter on Production Manager……. P.10
-- SignPal AAS II Quick Start…… P.13
[3] Transferring a Software License Using Softkey…… P.18
[4] SignPal 8.5 Feature Lists…….. P.20

[1] Installing the SignPal 8.5 software

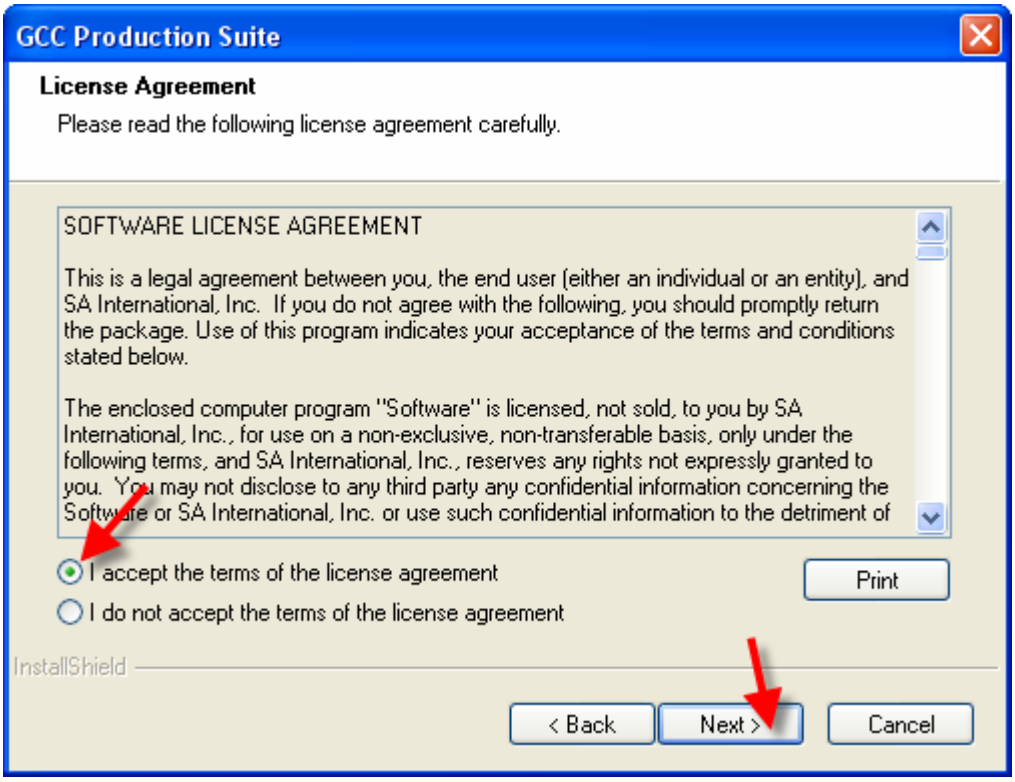
To install the software, you must have Administrator privileges. To use the software, you must have Administrator or Power User privileges. See your Windows user guide for more information.

1. Uninstall any previous version of the software.
2. Insert the Installation DVD.
3. Select a language and click **OK**.

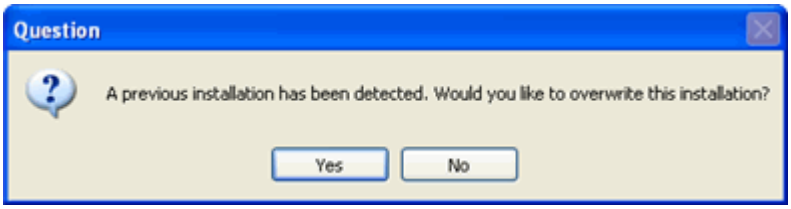
4. Click **Next**.


GCC Production Suite
Welcome to the InstallShield Wizard for GCC Production Suite
The InstallShieldR Wizard will install GCC Production Suite on your computer. To continue, click Next.
< Back
Next >
Cancel

5. Read the Software License Agreement and select **I accept the terms of the license agreement** and click **Next** to accept.

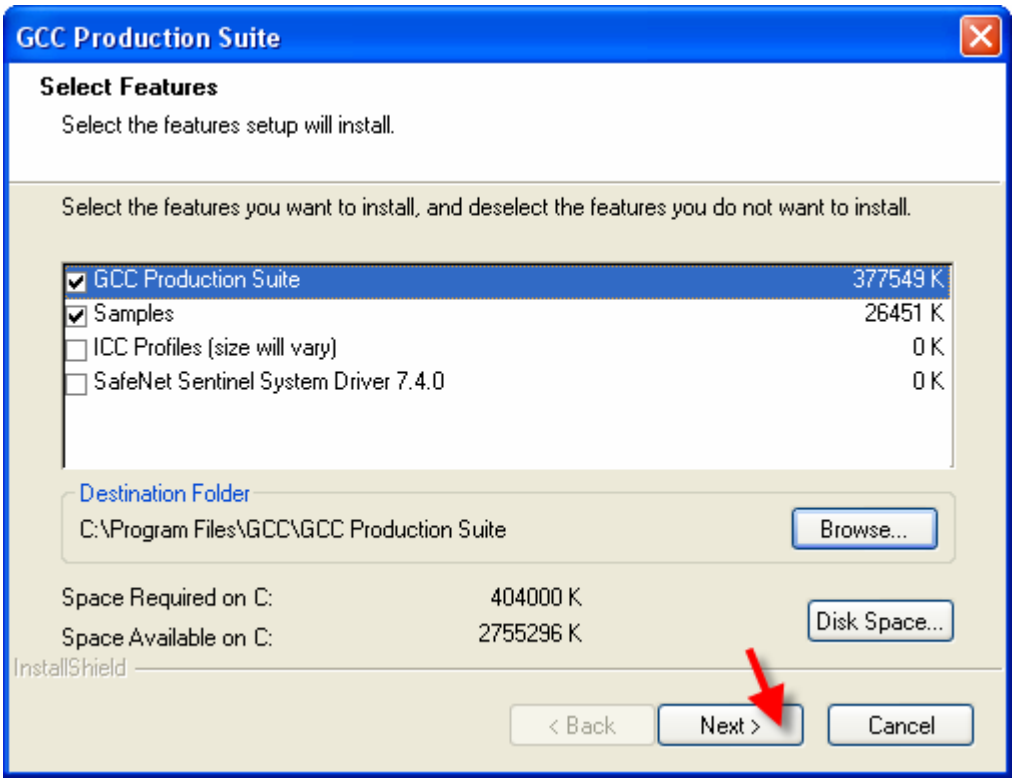

GCC Production Suite
License Agreement
Please read the following license agreement carefully.
SOFTWARE LICENSE AGREEMENT
This is a legal agreement between you, the end user (either an individual or an entity), and SA International, Inc. If you do not agree with the following, you should promptly return the package. Use of this program indicates your acceptance of the terms and conditions stated below.
The enclosed computer program "Software" is licensed, not sold, to you by SA International, Inc., for use on a non-exclusive, non-transferable basis, only under the following terms, and SA International, Inc., reserves any rights not expressly granted to you. You may not disclose to any third party any confidential information concerning the Software or SA International, Inc. or use such confidential information to the detriment of
I accept the terms of the license agreement
I do not accept the terms of the license agreement
Print
InstallShield
< Back
Next >
Cancel

6. If you did not have any previous versions of the software installed, skip to the next step. If you still have a previous version of the software installed, you will be prompted to overwrite the existing installation. Click **Yes** to overwrite any previous installation of the software.



7. Select the features of the software that you want to install and click **Next**:

- Check **GCC Production Suite** to install the software.
- Check **Samples** to install sample files.
- Check **SafeNet Sentinel System Driver** to install the software driver for this key. If you do not use this type of key, you do not need to install this driver.

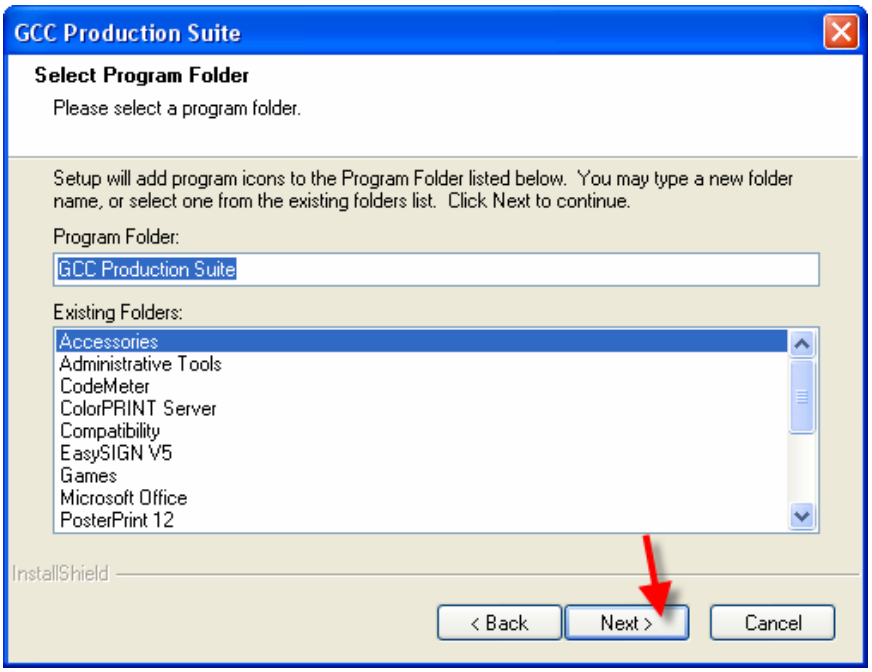

GCC Production Suite
Select Features
Select the features setup will install.
Select the features you want to install, and deselect the features you do not want to install.
GCC Production Suite 377549 K
Samples 26451 K
ICC Profiles (size will vary) 0 K
SafeNet Sentinel System Driver 7.4.0 0 K
Destination Folder
C:\Program Files\GCC\GCC Production Suite
Browse...
Space Required on C: 404000 K
Space Available on C: 2755296 K
Disk Space...
InstallShield
< Back
Next >
Cancel

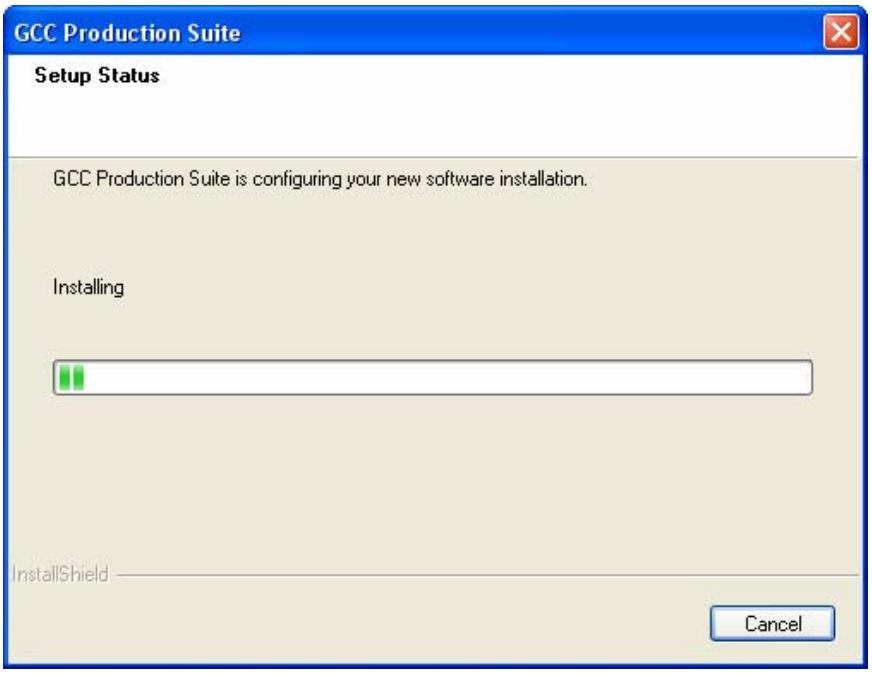
A. To change the default destination folder, click **Browse** and choose a new destination folder.
B. To check that the drive you are installing to has enough space for the installation:
    a. Click **Disk Space**.

b. From the drop-down menu, select the drive you want to install to, and verify that it has enough space for the installation.
c. Click **OK**. The installation drive changes to the selected drive when you click **OK**.

8. Select the Program folder where the shortcut for the software will appear. A new folder is automatically created for the product.

9. Click **Next** to install the software.





10. Once the installer is finished installing, the **Install Manager** opens. The Install Manager allows you to run a demo version of any available products, or to enter a password to access the software and any optional features.

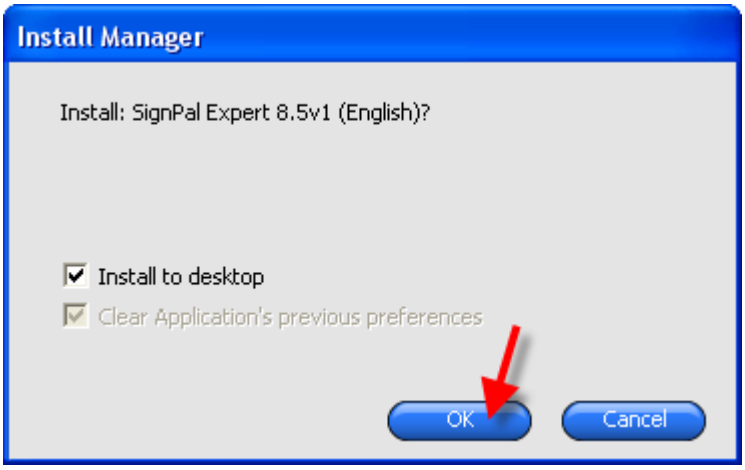
11. Do one of the following:

- Check **Run in demo mode** to run a demo version of any available products in any available language.
- Enter a Password, and then select a product from the **Product** list and a language from the **Language** list. Use the **Add** button to enter any additional passwords in the Optional Password section to unlock optional features.

Password This is your main application password for the software.

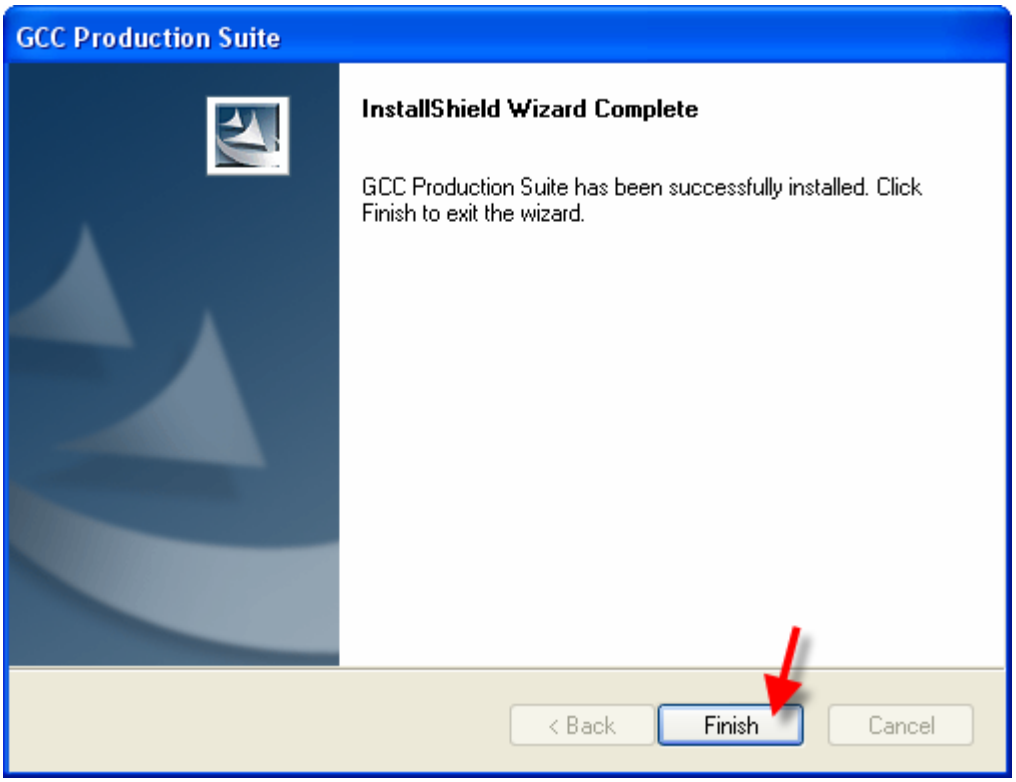
Optional Password If you purchased additional options, you may enter the option passwords in this field to upgrade your software.

12. Click **Done**.



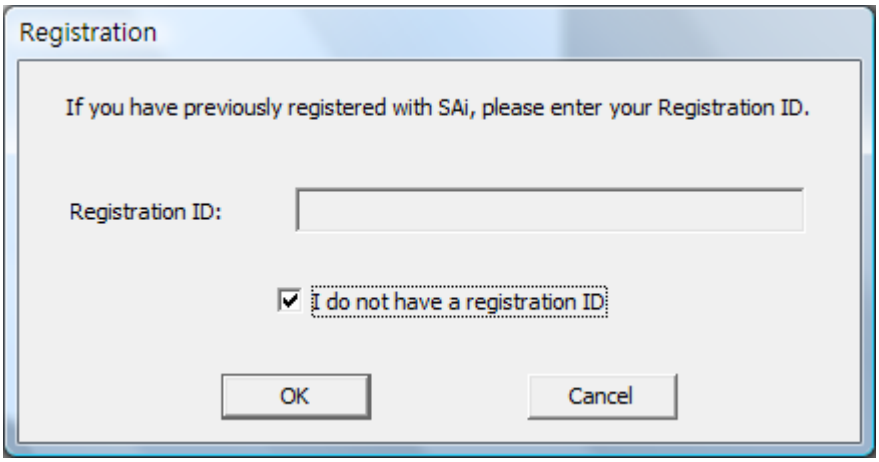
13. Check which icons and preferences you want to install:

- Check **Install to desktop** to install a shortcut for the software on the desktop.
- Check **Install to startup items** to install a shortcut for the software in the Startup folder of the Start menu. If this is done, each time the computer starts up, the software will automatically start up and minimize itself, displaying an icon in the system tray of the Windows system tray.
- Check **Clear Application's previous preferences** to clear the preferences or clear the check box to retain old preferences.
- Click **OK**.

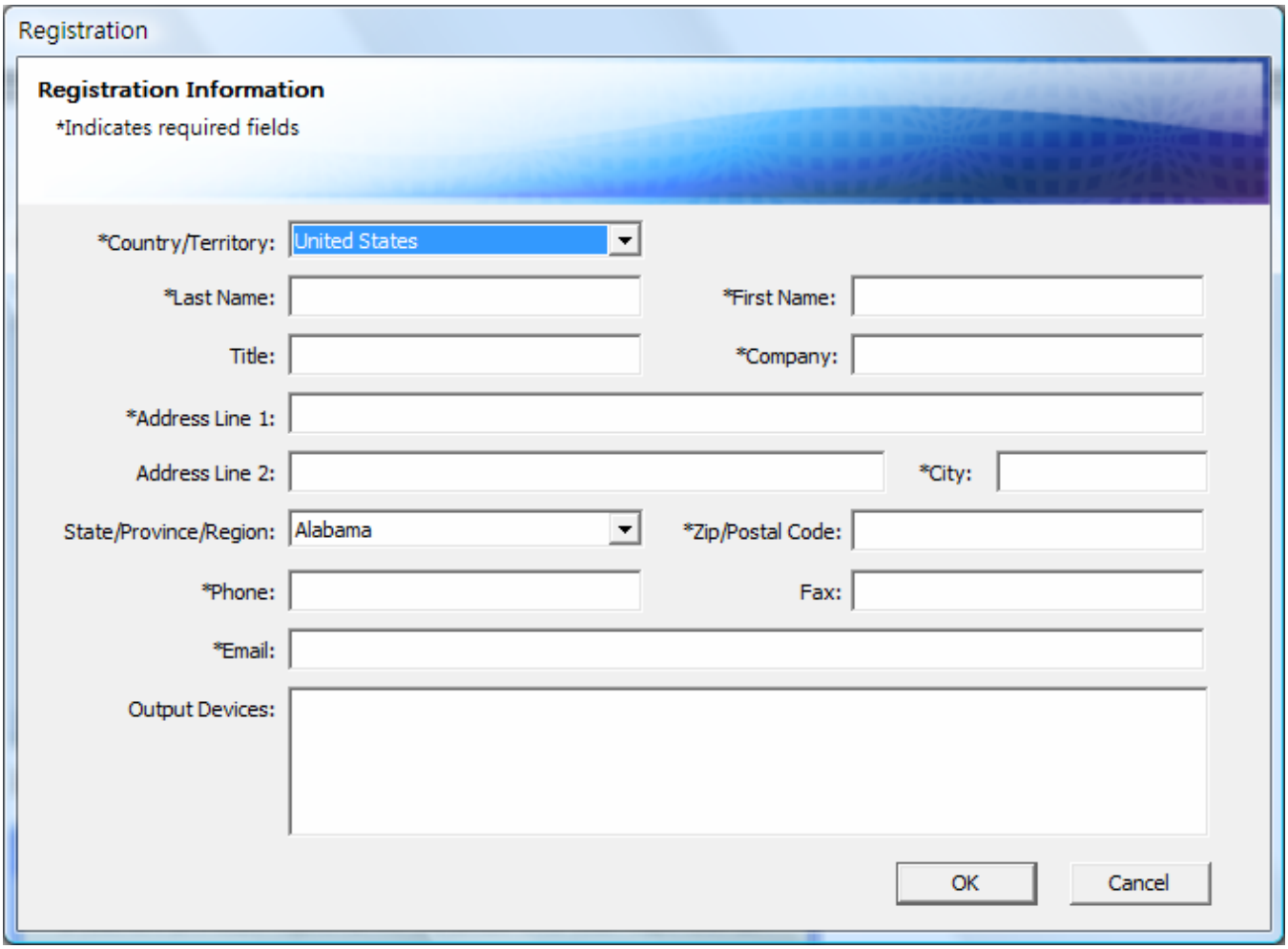


14. Open SignPal 8.5v1

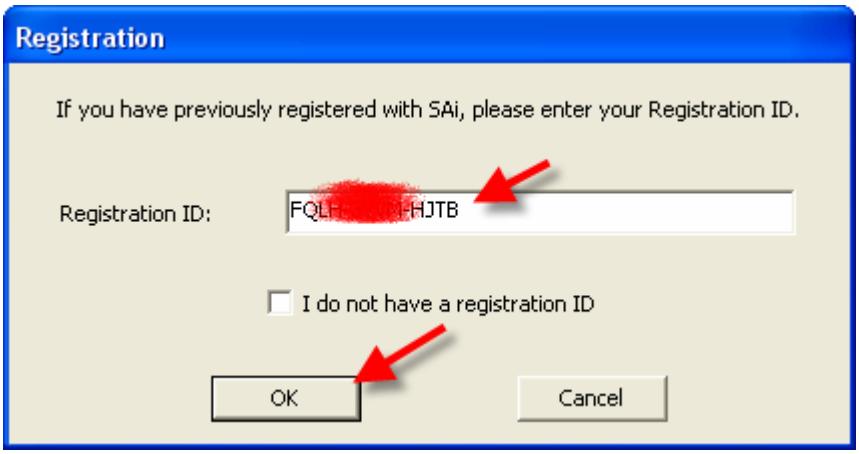
15. As you have not registered before, please check on the box at bottom to register a new account.


Registration
If you have previously registered with SAi, please enter your Registration ID.
Registration ID:
I do not have a registration ID
OK
Cancel

16. Input your personal information to complete the online registration.

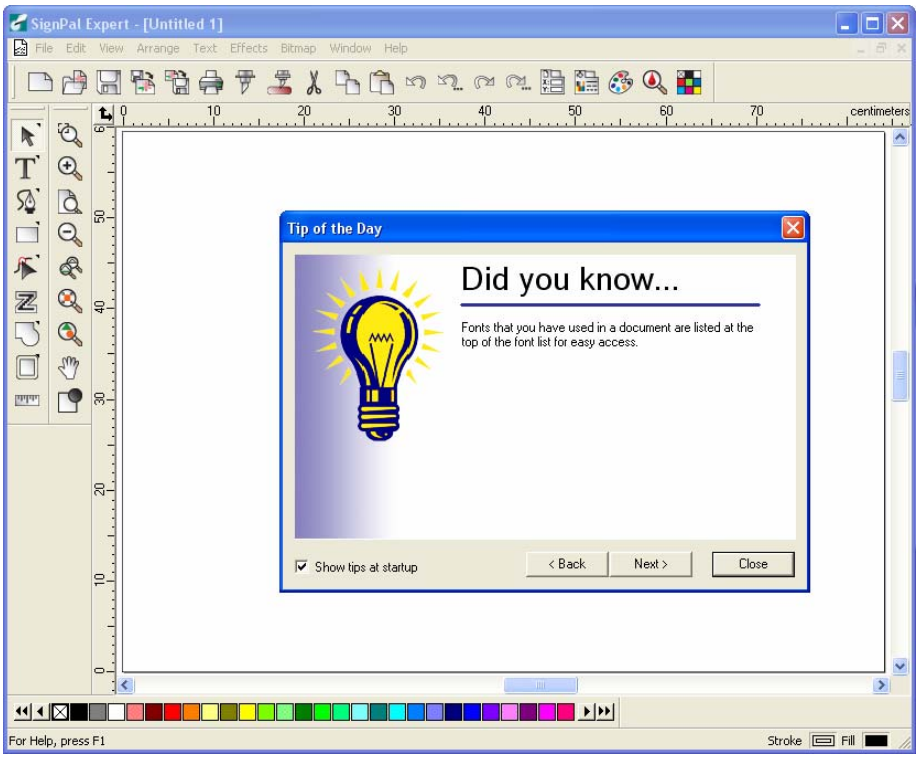


17. If you have registered before, please enter your Registration code as below to open SignPal 8.5v1 software.



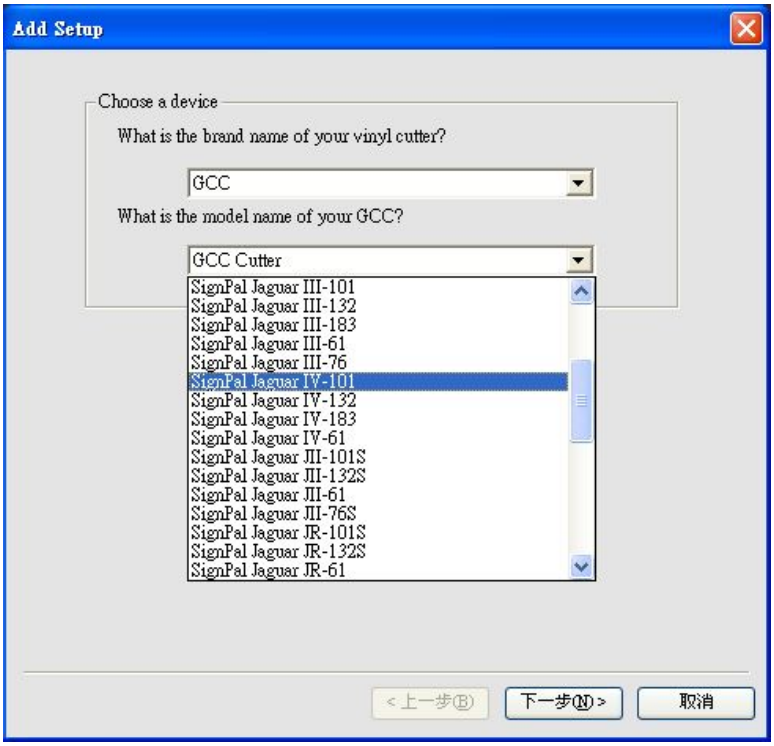
SignPal
Sign Making Software
SignPal

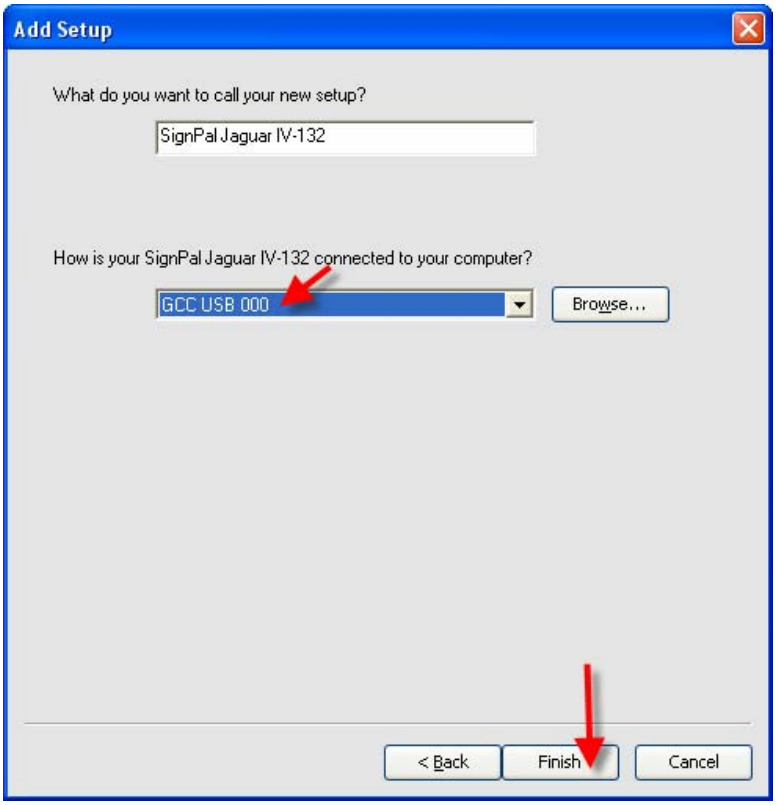
SignPal Expert
SignPal Expert 8.5v1
Runtime hours until password expires: 582.51
Licensed to:
YWHX-JDNM-
-WPCJ-TFV7-KYUP-YRGF
OK

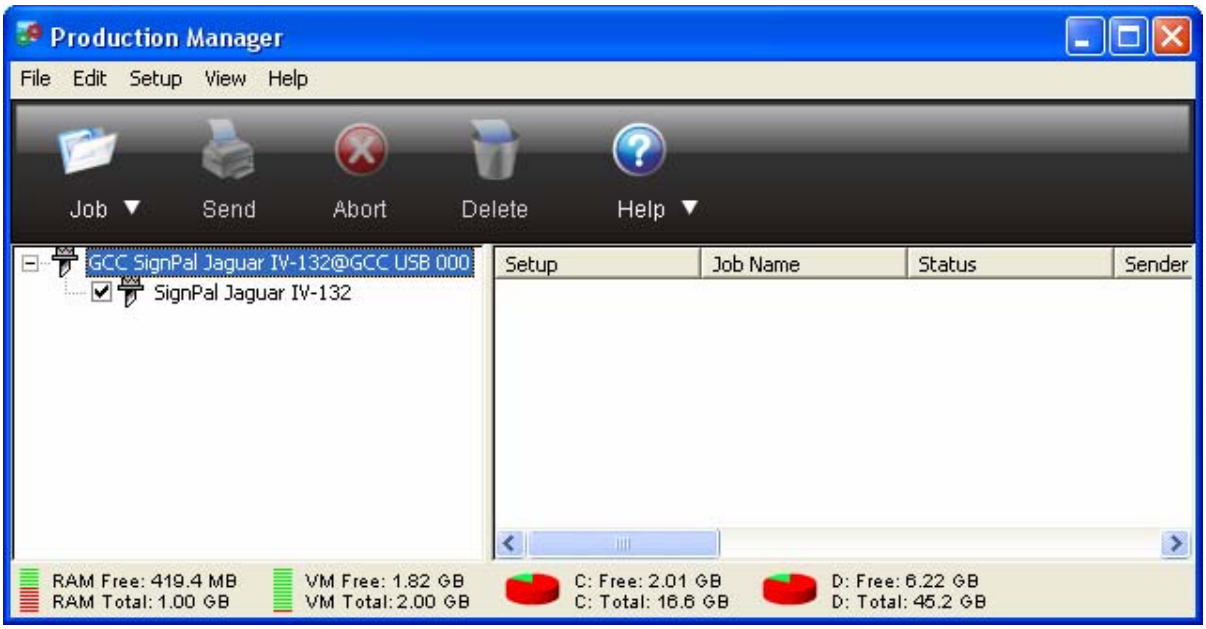

SignPal Expert - [Untitled 1]
File Edit View Arrange Text Effects Bitmap Window Help
centimeters
Tip of the Day
Did you know...
Fonts that you have used in a document are listed at the top of the font list for easy access.
Show tips at startup
< Back
Next >
Close
For Help, press F1
Stroke
Fill

[2] Set up your GCC Cutter on Production Manager

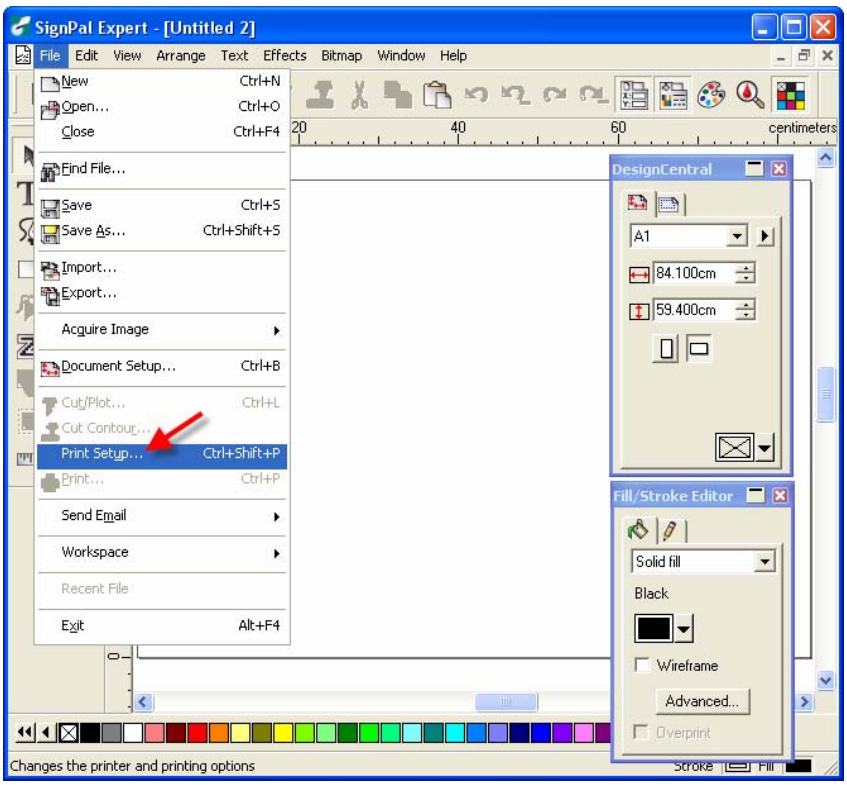
1. Open Production Manager 8.5v1
2. Choose and set up your GCC cutter.
   (Note that AAS II System only works on Jaguar IV and Puma III.)



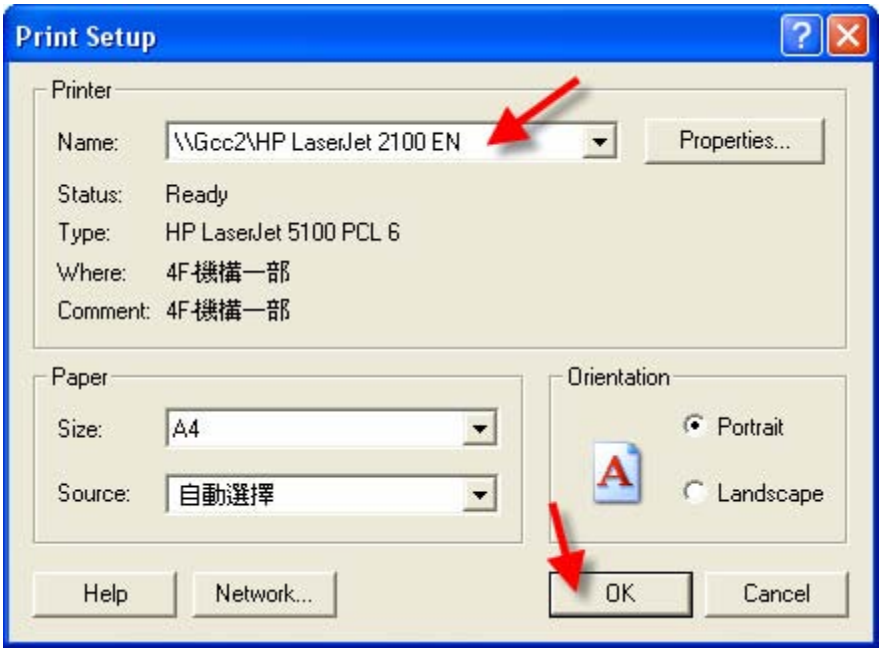


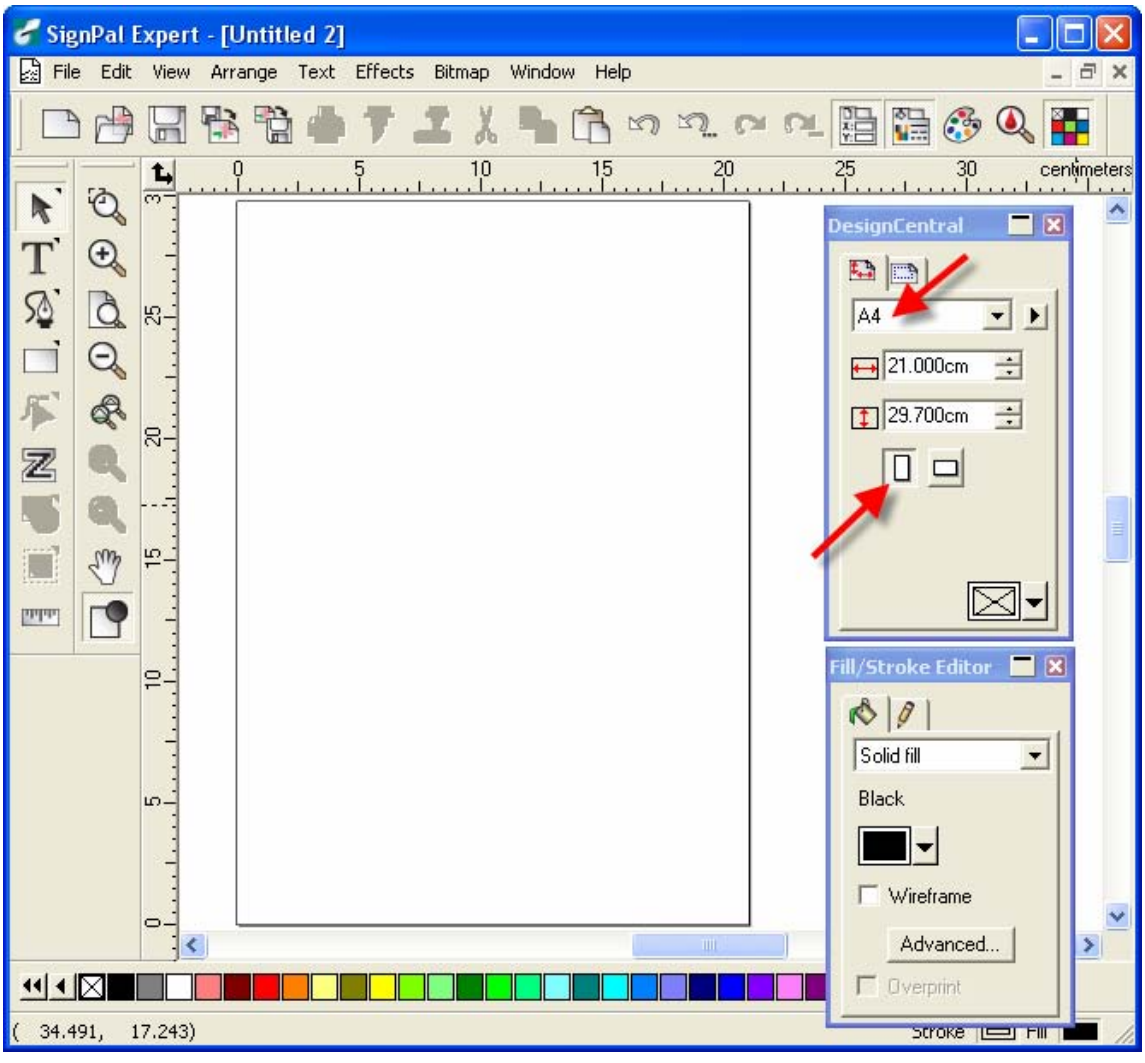


3. Select **File > Print Setup** in SignPal Software.



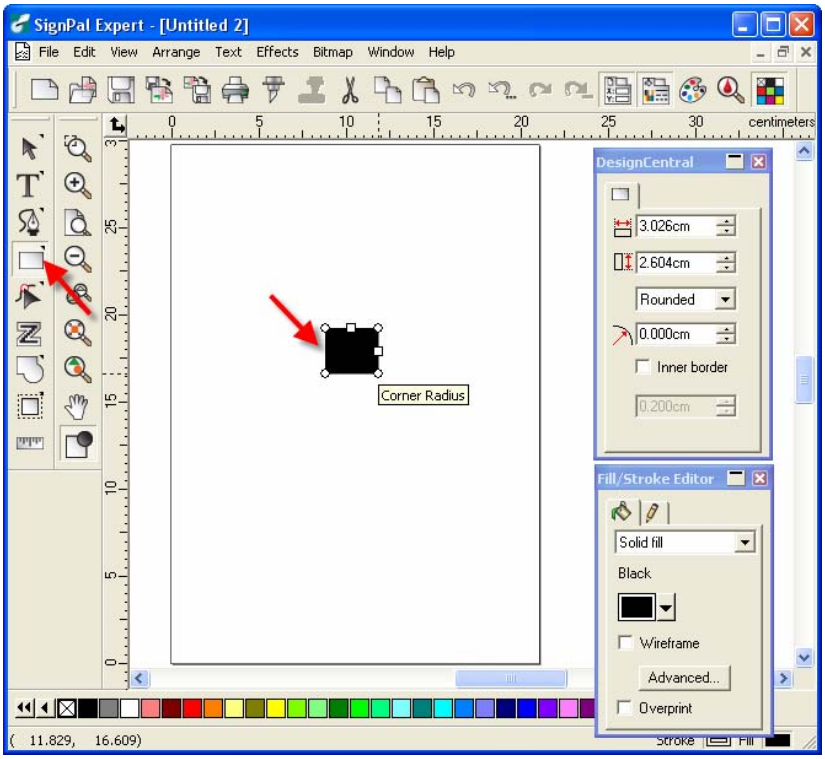
4. Select the printer and paper size.



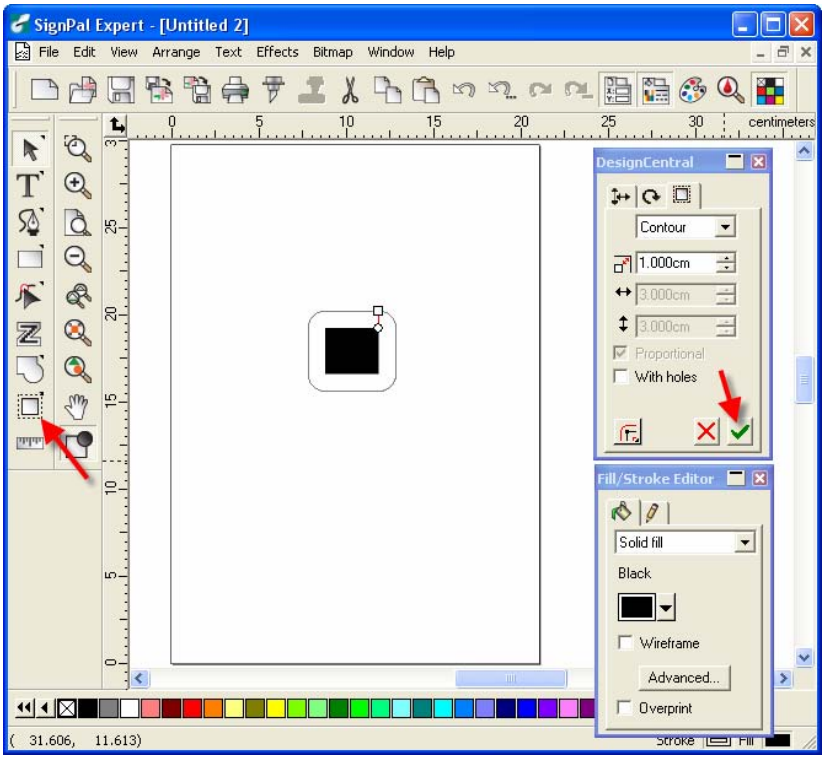


-- SignPal AASII Quick Start

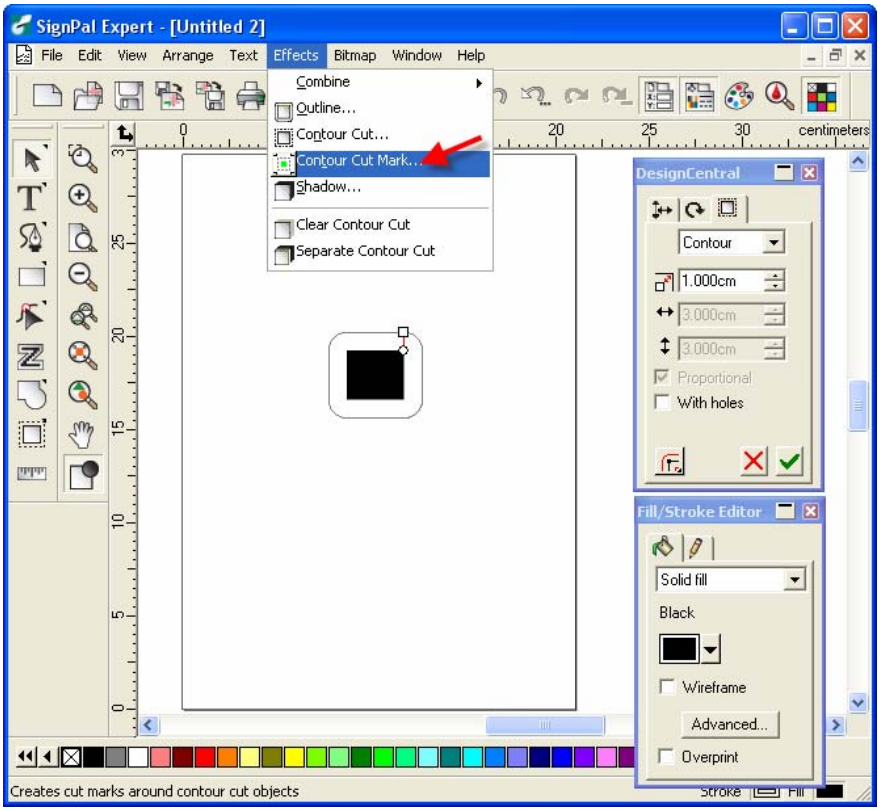
5. Use the **Rectangle Tool** to create a rectangle.



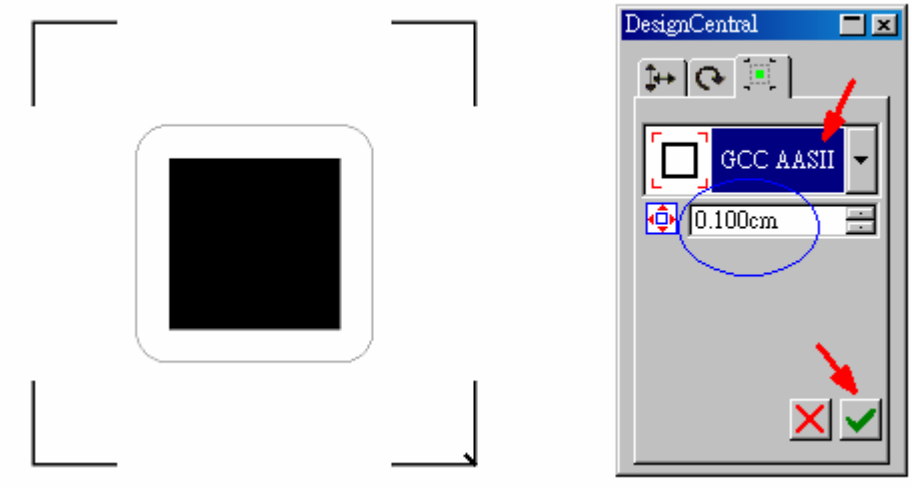
6. Select **Effect > Contour Cut**. Then click 'Apply' in DesignCentral window.



7. Apply the contour cut mark of GCC AASII by selecting **Effect > Contour Cut Mark**.



8. Select "**GCC AASII**" in SignPal DesignCentral window to create the AAS II registration marks (4-Point Positioning). Set the vales as 0.1cm or above and click '**Apply**' in DesignCentral window. The value is to define the distance between registration marks and image area. If the value is less than 0.1cm, it is likely that the image will overlap the marks and result in bad cutting quality.

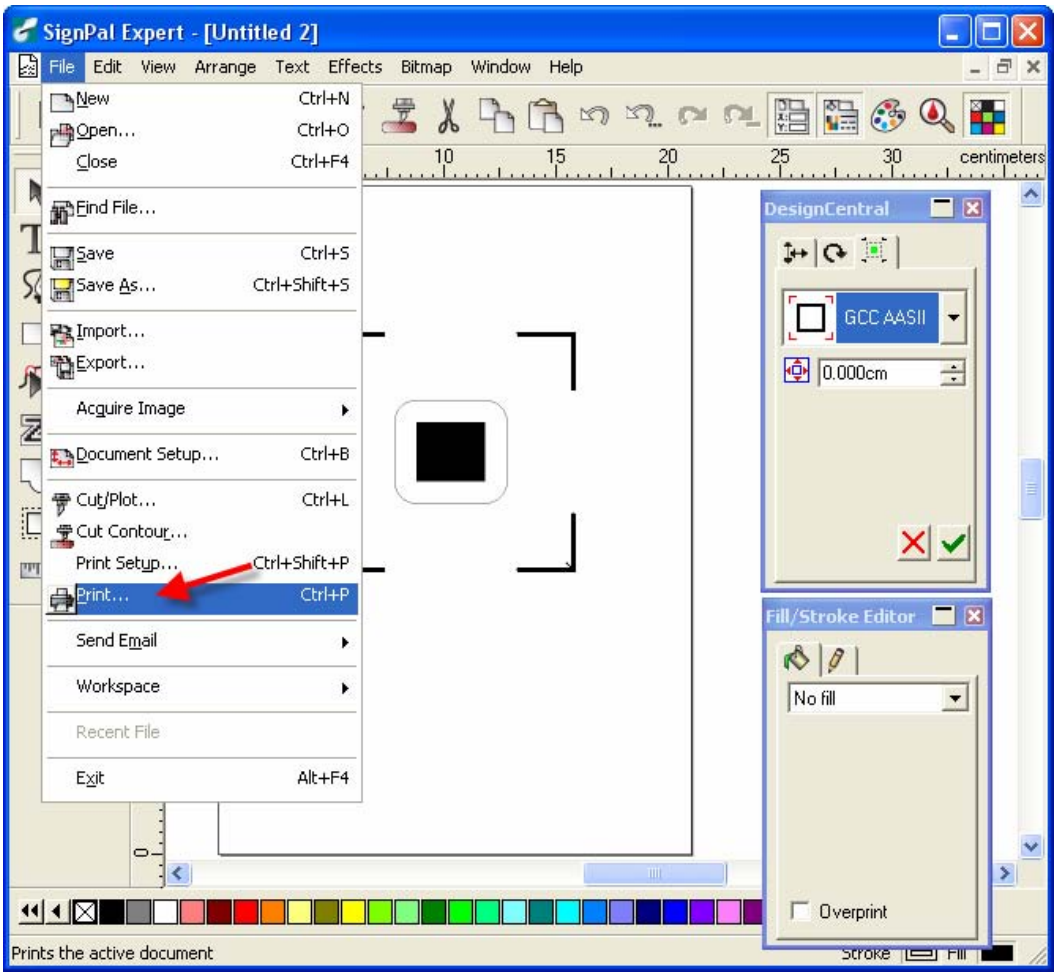


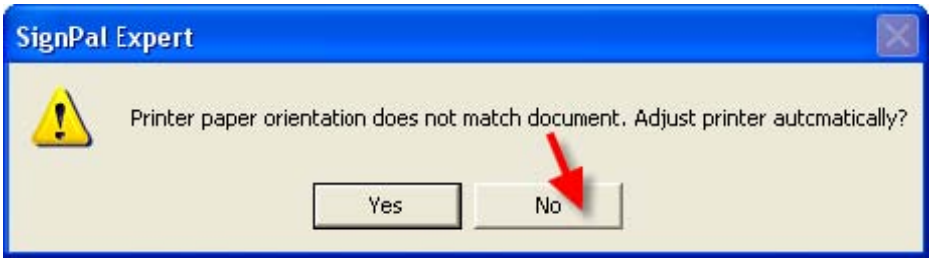
9. There are three types of GCC AASII registration marks: 4-Point Positioning, Segmental Positioning, and Multiple Copies. To make 'Segmental Positioning' marks, please select "**GCC**

Segmentation" in DesignCentral window and then click '**Apply**'.

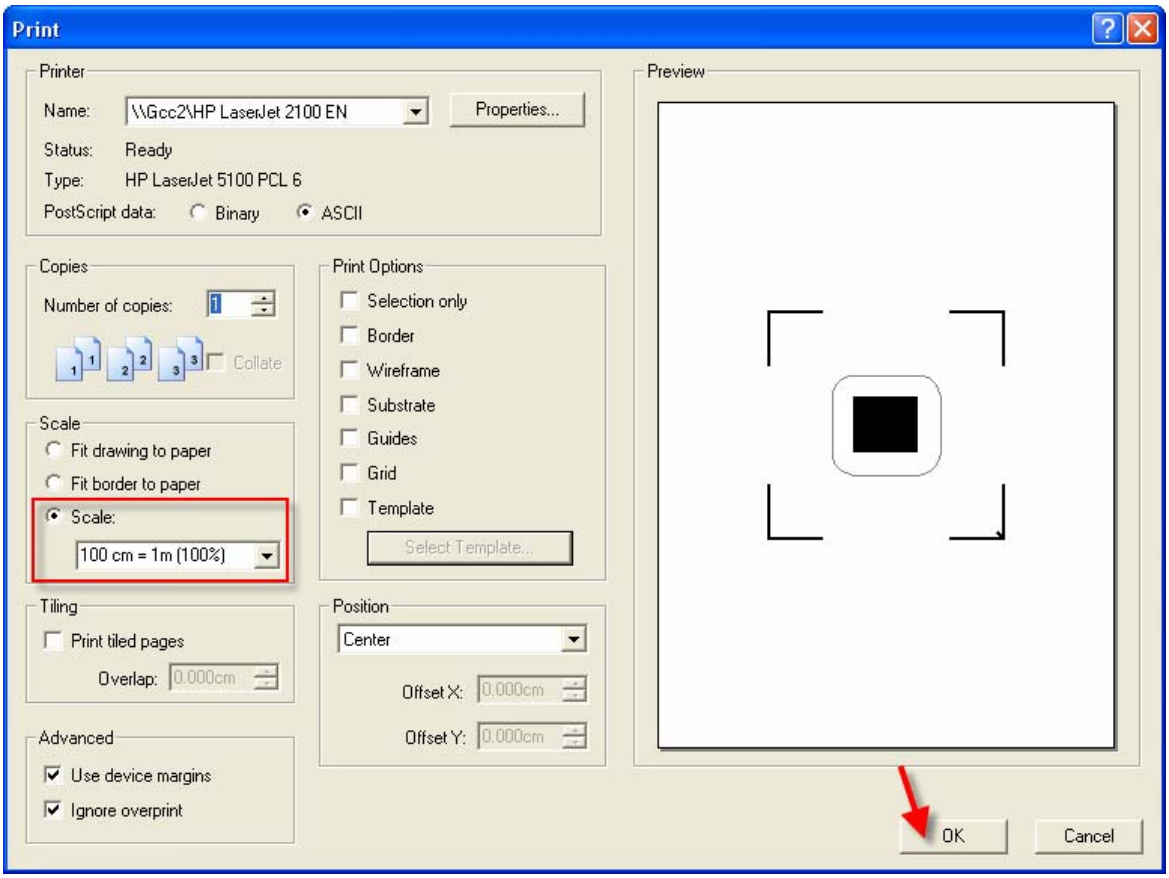
10. For 'Multiple Copies', this function is not available in SignPal. Currently the 'Multiple Copies' function is only available under CorelDraw plug-in.

11. Select **File > Print** to print out the image.

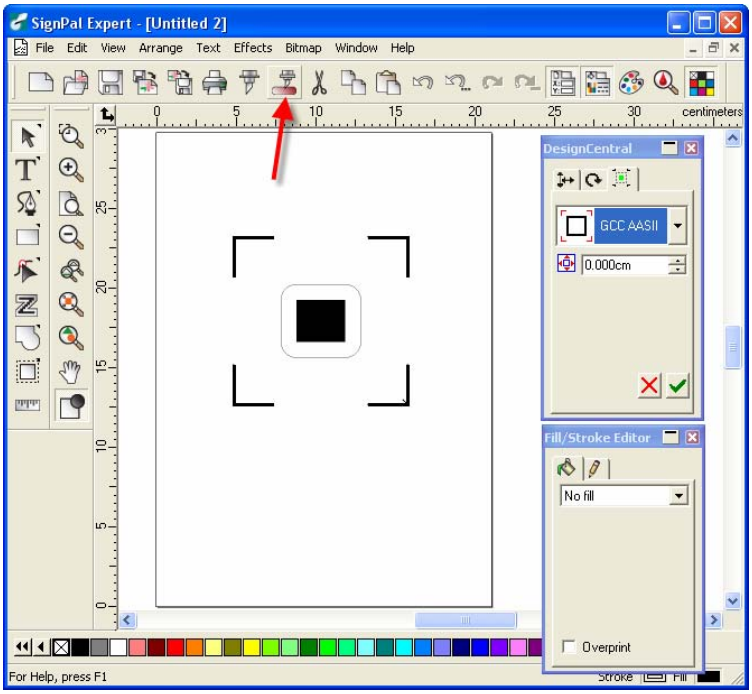


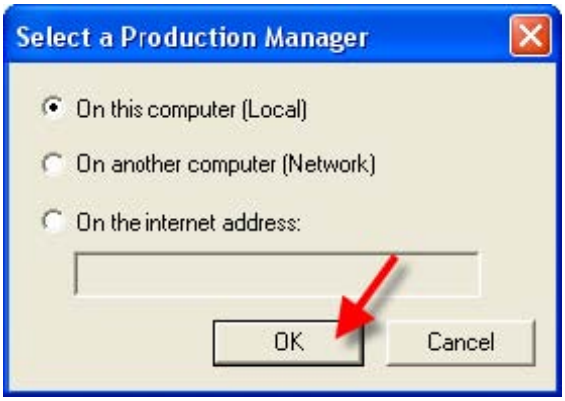


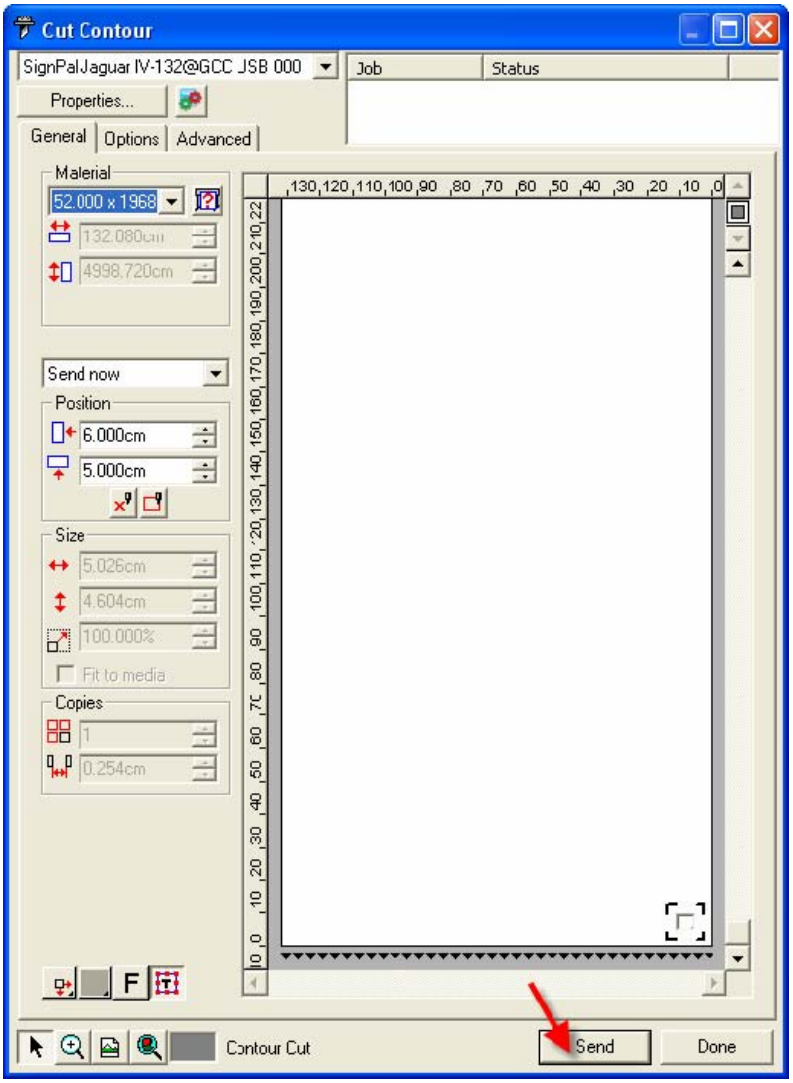
12. Set the Scale as 100cm =1m (100%) in Print page.



13. Load the printout vinyl on the plotter and select **File > Cut Contour** to send data. You can preview the job and change cutter's parameter settings in 'Properties' tab of Cut Contour window. The Production Manager will be automatic activated to complete the job.


SignPal Expert - [Untitled 2]
File Edit View Arrange Text Effects Bitmap Window Help
DesignCentral
GCC AASII
0.000cm
Fill/Stroke Editor
No fill
Overprint
For Help, press F1


Select a Production Manager
On this computer (Local)
On another computer (Network)
On the internet address:
OK
Cancel

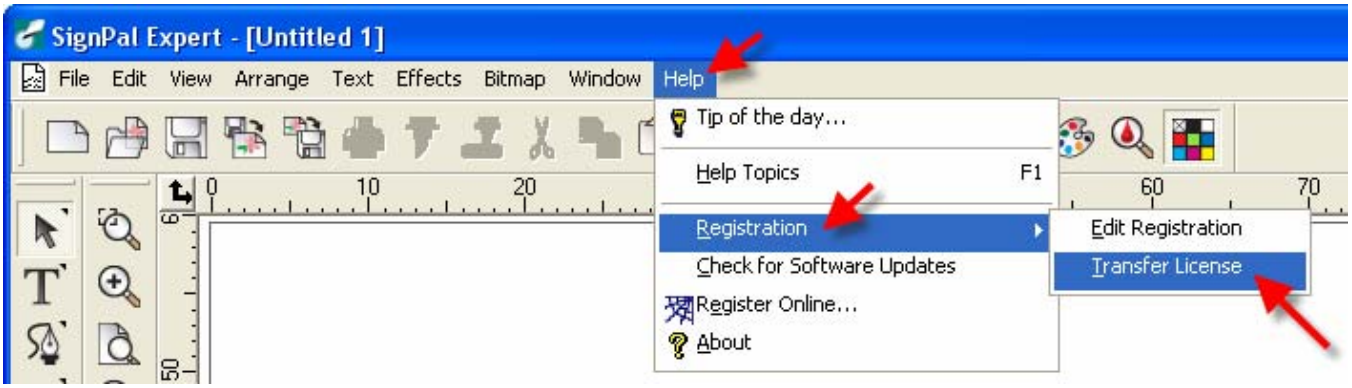

Cut Contour
SignPalJaguar IV-132@GCC JSB 000
Job
Status
Properties...
General
Options
Advanced
Malerial
52.000 x 1968
132.080cm
4998.720cm
Send now
Position
6.000cm
5.000cm
Size
5.026cm
4.604cm
100.000%
Fit to media
Copies
1
0.254cm
Contour Cut
Send
Done

[3] Transferring a Software License Using Softkey

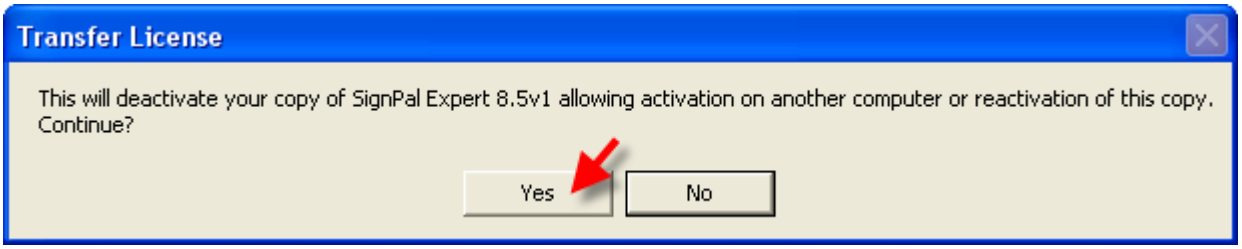
Softkey allows you to transfer the software license to another computer by disabling the software license on one computer, and enabling it on another.

> **Remarks**: If you would like to upgrade or reinstall the Windows OS, please transfer your license before reinstallation. If your hard drive has been formatted and you forget to transfer license in advance, please provide your SignPal ID and password to your local distributor, they will contact GCC to reset your data, and you will be able to register again afterward.

1. From the **Help** menu, mouse over **Registration** and select **Transfer License**.



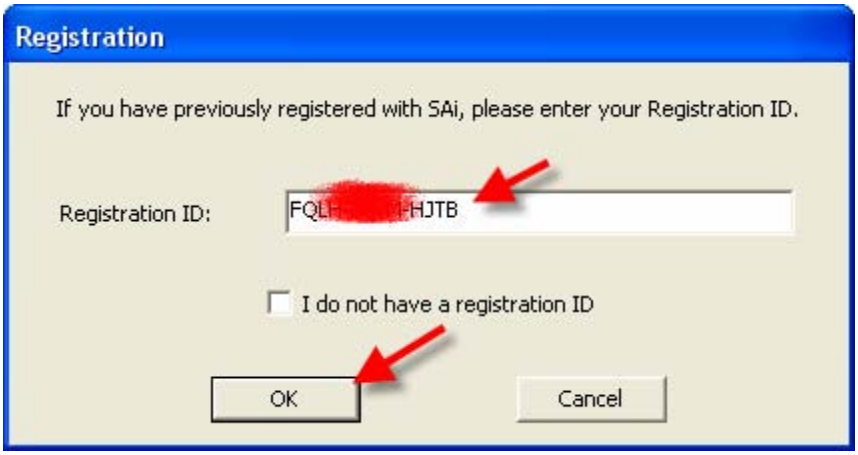
2. Click **Yes** to deactivate the software license on the computer currently running the software. You can reactivate the license on another computer or the same computer.


Transfer License
This will deactivate your copy of SignPal Expert 8.5v1 allowing activation on another computer or reactivation of this copy. Continue?
Yes
No

3. Make note of your Registration ID and click **OK**.

Transfer License
Your license is ready to be installed on another computer.
Please write down your registration number: FQL[redacted]-HJTB.
You can use this code to skip the registration step when re-activating or re-installing the software.
OK

4. Install the software on the computer you wish to transfer the license to.



[4] SignPal 8.5 Feature Lists

	Pro	Master	Expert	Apprentice
Working with Files				
Job Info	●	●	●	
Templates	●			
Using DesignEditor				
DesignEditor	●	●		
Arranging Objects				
Distribute	●			
Working with Color				
Eyedropper	●			
Using Fill/Stroke Editor				
Overprint	●	●	●	●
Working with Shapes				
Fan	●			
Arrow	●			
Working with Text				
Text Block Size	●			
URW Font Support	Optional			
Working with Bitmaps				
Scanning	●	●	●	
Rasterize	●			
Colormode	●			
Marquee	●	●		
Move	●	●		
Eraser	●	●		
Pencil	●	●		
Fill	●	●		
Crop	●	●		
AutoTrace	●	●	●	
ColorTrace	●			
Working with Effects				
Color Trapping	●			
Graphic Styles				
Contour	●	●	●	
Working with Measurements and Labels				
Dimensions / Labels	●	●		
Automatic Dimension	●	●		
Dimension to Page	●	●		
Cutting your Design				
Cut/Plot	●	●	●	●

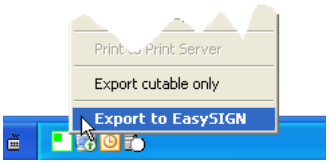
EasySIGN Instruction

The user manual of EasySIGN software is available on the EasySIGN program CD, or you can refer to the getting started manual available on the EasySIGN webpage at http://www.easysign.com/mainwebv1/DownGT.aspx.

GCC AASII Corpmark System

This application note will show you how to use the GCC AASII corpmark system. It assumes that you have installed your GCC plotter correctly, and that you are able to cut simple jobs on it. If not, please refer to the “Getting started” manual available through the menu "Help, Various, GettingStarted.pdf".

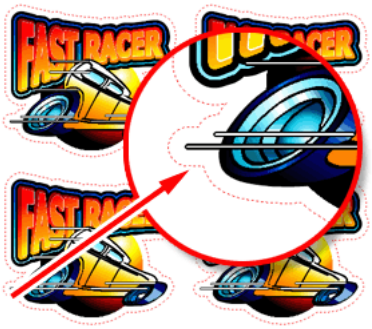
1. Make or import a design



You can either make the design in EasySIGN or import an existing design from another application. For making the design in EasySIGN refer to the "Getting Started" manual. To import a design (for example an Adobe illustrator file) into EasySIGN, use either the compatibility option, or use direct import (menu : "File, Import"). The easiest way is to use compatibility. To do this, start EasySIGN, then use the menu “File, Compatibility”, and click the software of your choice.

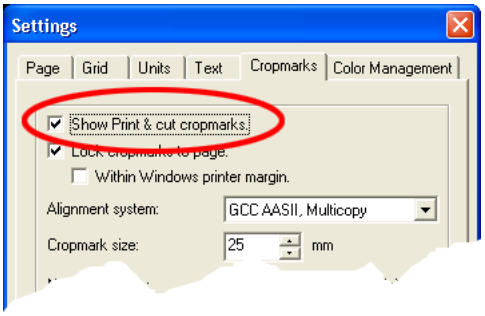
This software will now start, and can be used to design or open the required job. Click the icon in the system tray to easily send the file into EasySIGN.

2. Create print & cut lines.



When your design is successfully imported into EasySIGN, you should then select the line or lines that you want to cut on your plotter. After selecting them, use the command “Edit, Convert to, Line type, Print&cut line”. The lines that will be cut are now shown in a dotted red line. Copy the design as you like.

3. Enable the cropmarks.



Right-click on an empty part of the worksheet, and choose the command “Cropmark settings”.

This will show a dialog.

Please tick the box called “Show Print & cut cropmarks”.

Next, you need to make a choice which system that you want to use, there are three different systems:

GCC AASII	This system uses four cropmarks, and one copy. It is meant for jobs that are not very large (like 60 cm or smaller) and that are going to be printed on single sheets.
GCC AASII, Multicopy	Use this system when you want to cut multiple copies of a small job. This will give you very high accuracy, but the plotter will scan every copy of the job separately, which is of course slower than one big job.
GCC AASII, Multisegment	Use this system when the job is large. We recommend it for jobs bigger than 60 centimeter. It will place extra markers on the sheet, which will enhance the accuracy but will take extra time to scan.

The size of the cropmarks is fixed at 25 mm. Just click “OK” to close the dialog. If you have chosen the “Multicopy” cropmarks, there will be extra settings for horizontal copies, vertical copies etc, please ignore these for now, we will get back to them later.

4. Position the cropmark

Use the panelling tool from the left toolbox to drag the cropmarks around your job.

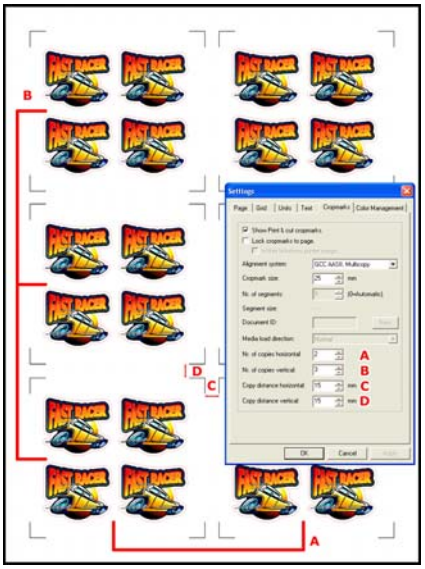
Make sure that the cropmarks have some white space around them, there should not be any objects inside them, to make sure they can be scanned accurately.

5. Export the job for printing

Your design is now ready for production. Click “File, Export”, and a dialog will come up that enables you to create a file. We advise you to use “EPS Encapsulated Postscript (*.EPS)” as the output format, this can be read by any RIP or other print software. Print the resulting EPS file with the software of your choice.

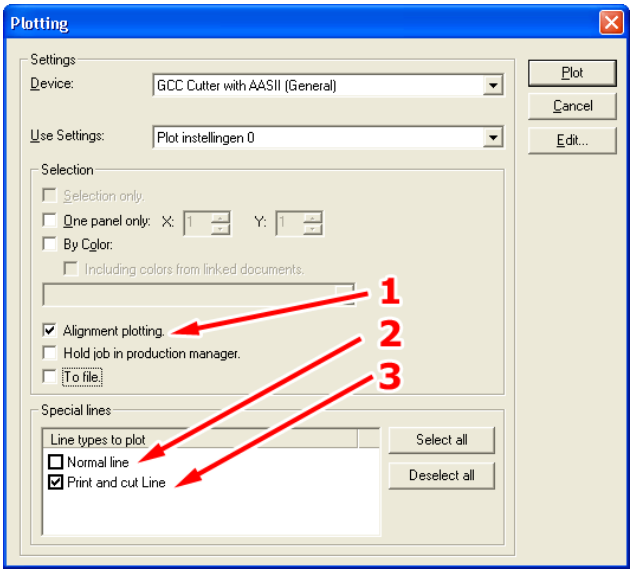
6. Cut the result

Place the resulting print in your plotter. Set the plotter to “offline” and use the arrow keys to position the laser within the lower right cropmark, then set the plotter to “online”.



If you have chosen the cropmarks “Multicopy”, there is one extra step: right-click the page and go to the “Cropmark settings” dialog again. In the dialog, enter the correct values for “nr. Of copies horizontal”, “Nr of copies vertical” and “Copy distance horizontal”, “copy distance vertical”, then click “OK”.

In the EasySIGN software, choose “File, Plotting”. A dialog will come up that allows you to change the plotter settings.



Just make sure that the following settings are made:

Alignment plotting (1)	Switched on
Normal line (2)	Switched off
Print and cut line (3)	Switched on

Then click “OK”. Your plotter will then start scanning the cropmarks, and after that the job will be cut.

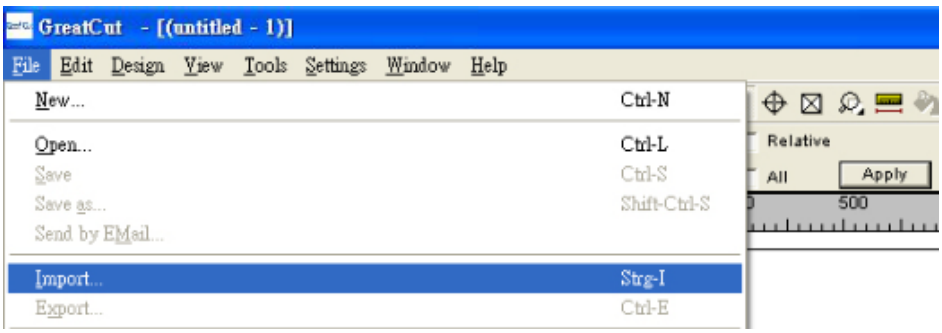
GreatCut Instruction

The user manual of GreatCut software is available on the GCC installation CD.

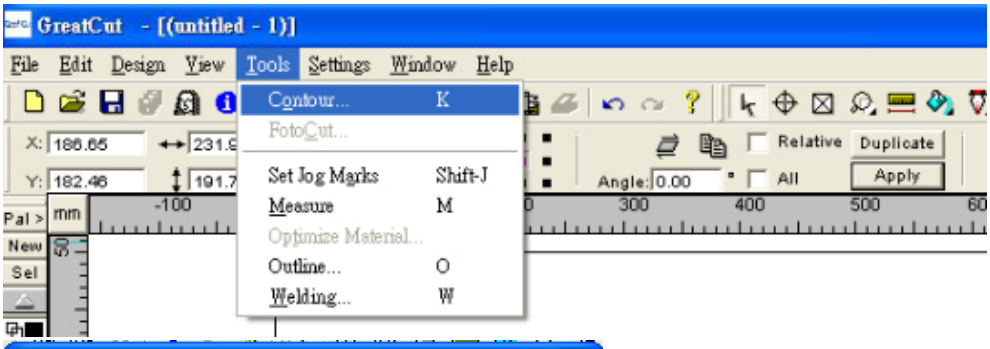
GCC AASII System

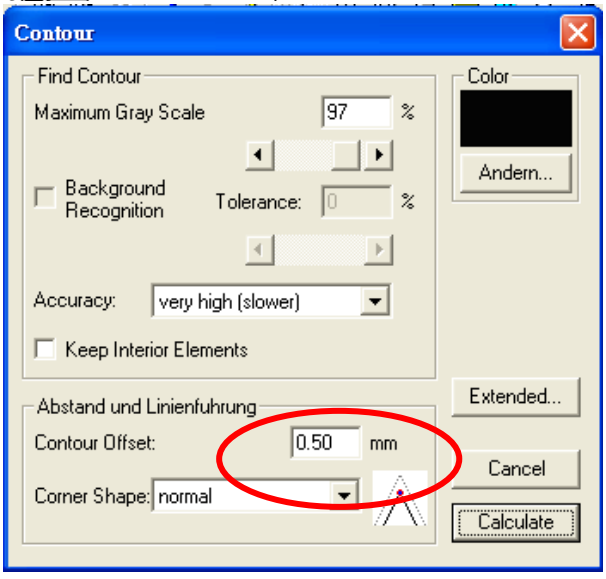
Below are step-by-step instructions when using the AAS function of GreatCut software.

Step 1 Import the image you want to print and cut.



Step 2 Add the contour line.

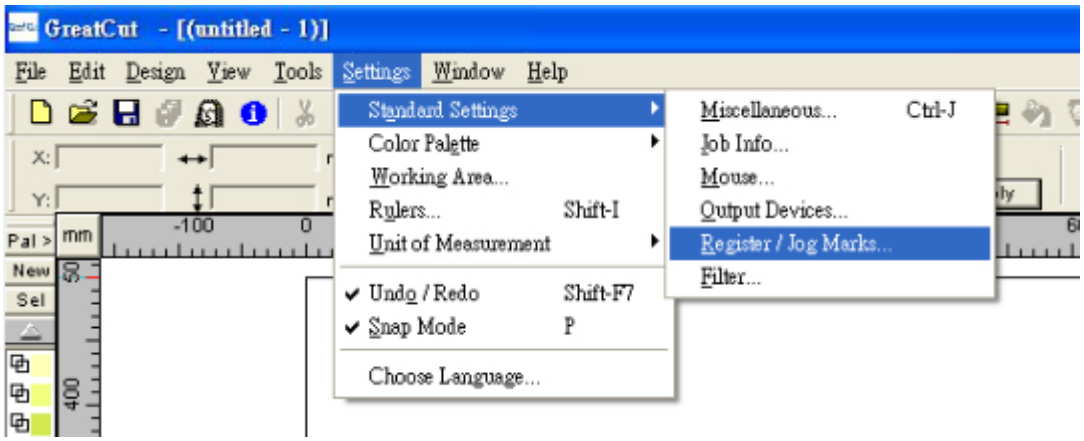


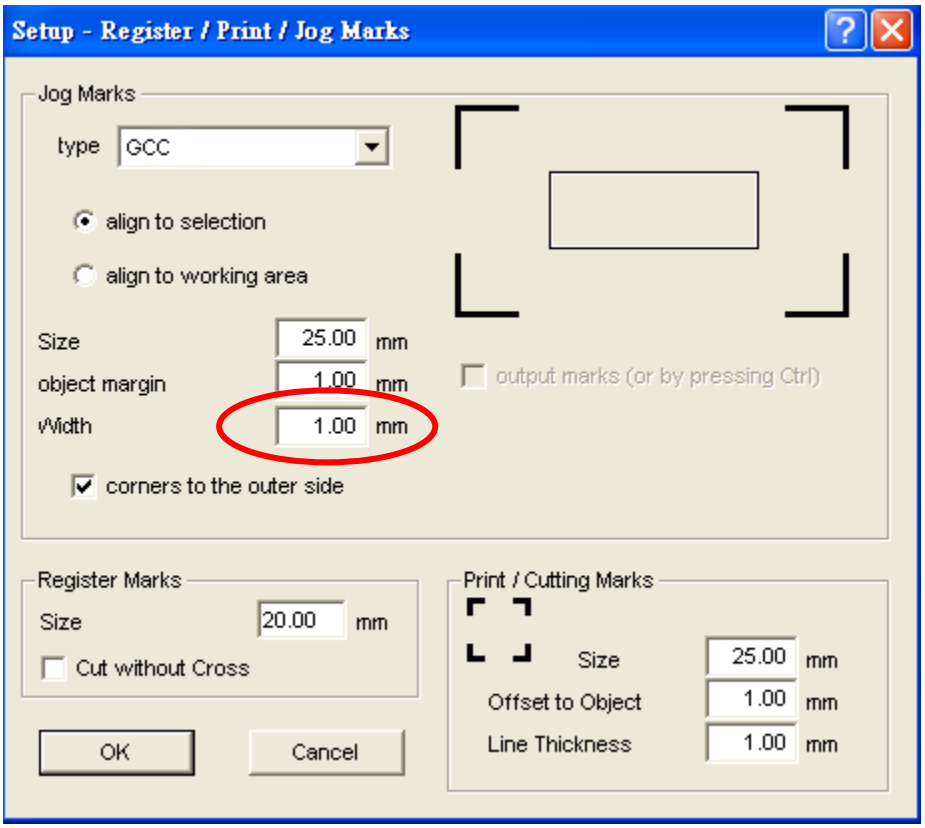


The value of Contour Offset should be ≥ 0.5mm.

Step 3 Add the registration marks

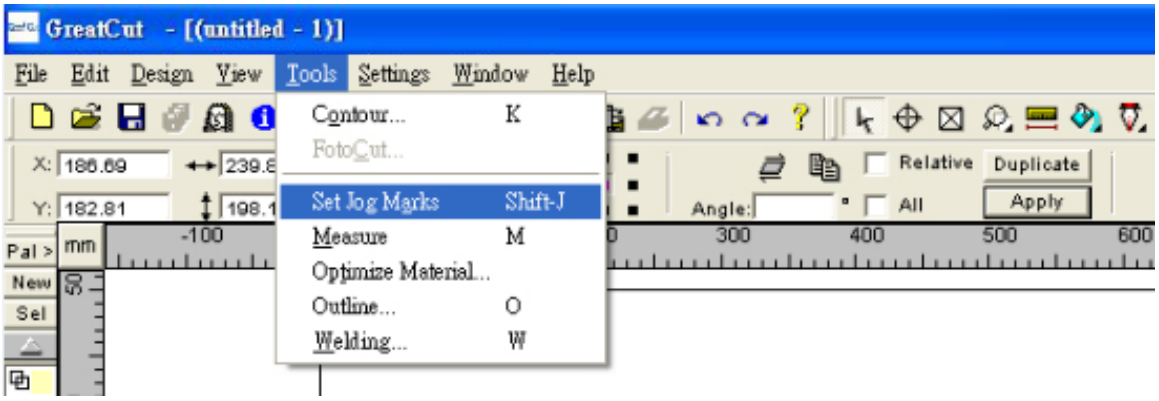
A. Set up the value of registration marks.



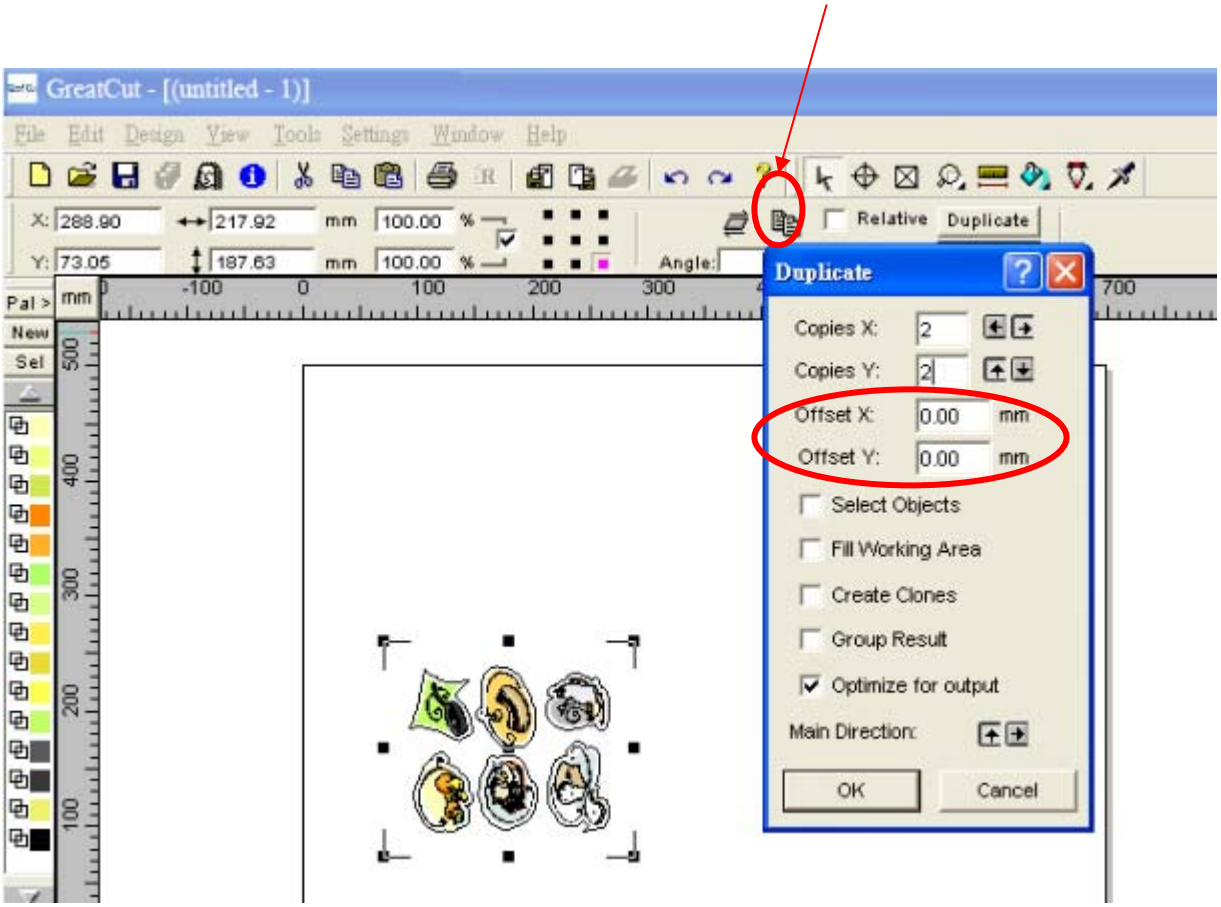


The value of width should be ≥ 1.0mm.

B. Set the registration marks.



Step 4 Select the whole image including registration marks and click the multiple copies button.



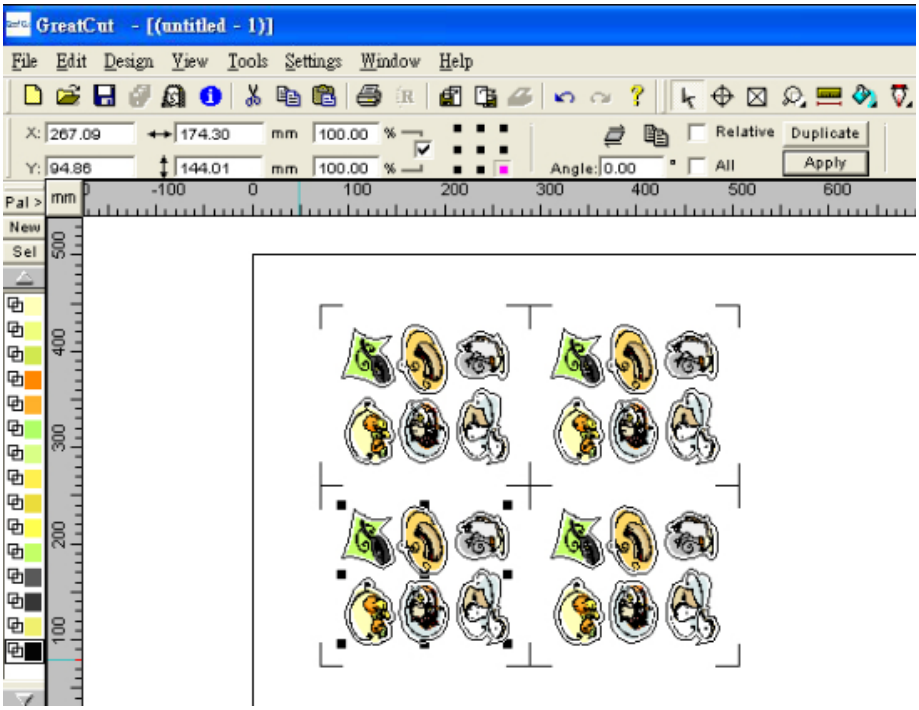
Note: The spacing of vertical & horizontal (Offset X & Y) should be ≥ 20mm or = 0mm.

Step 5 Print out the image.

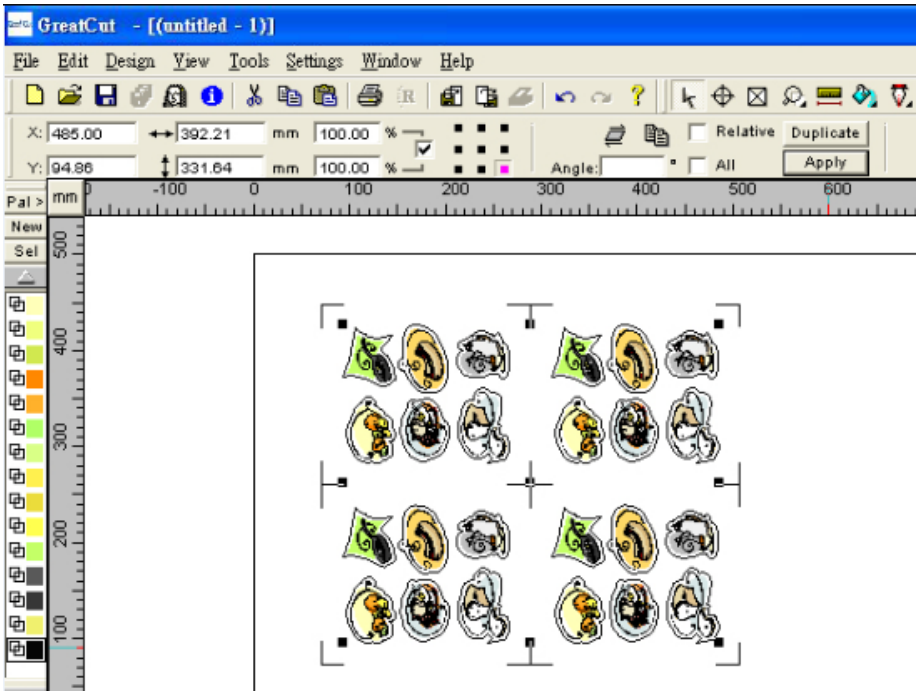
Step 6 Set up the multiple copies function with GCC cutting plotter.

*Please note that you cannot select the whole images when output the multiple copies of images. You only need to select the contour line of original one and set up the value with Cocut Pro 4X4 and then you can send it to GCC cutting plotter. See the example as below.

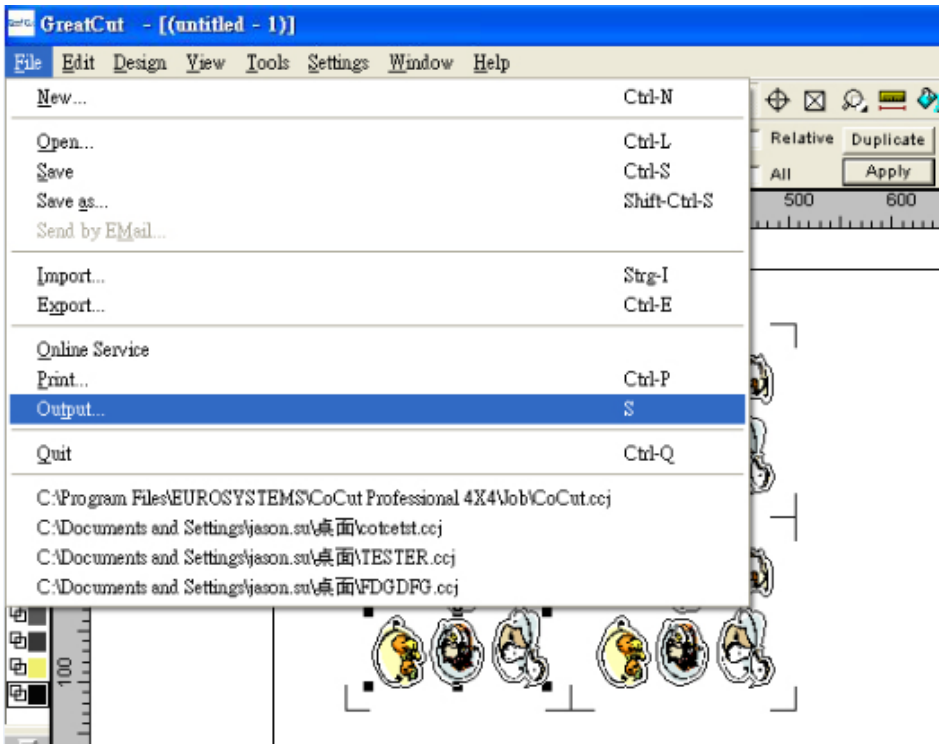
Right: (You should select the contour line but not the image.)



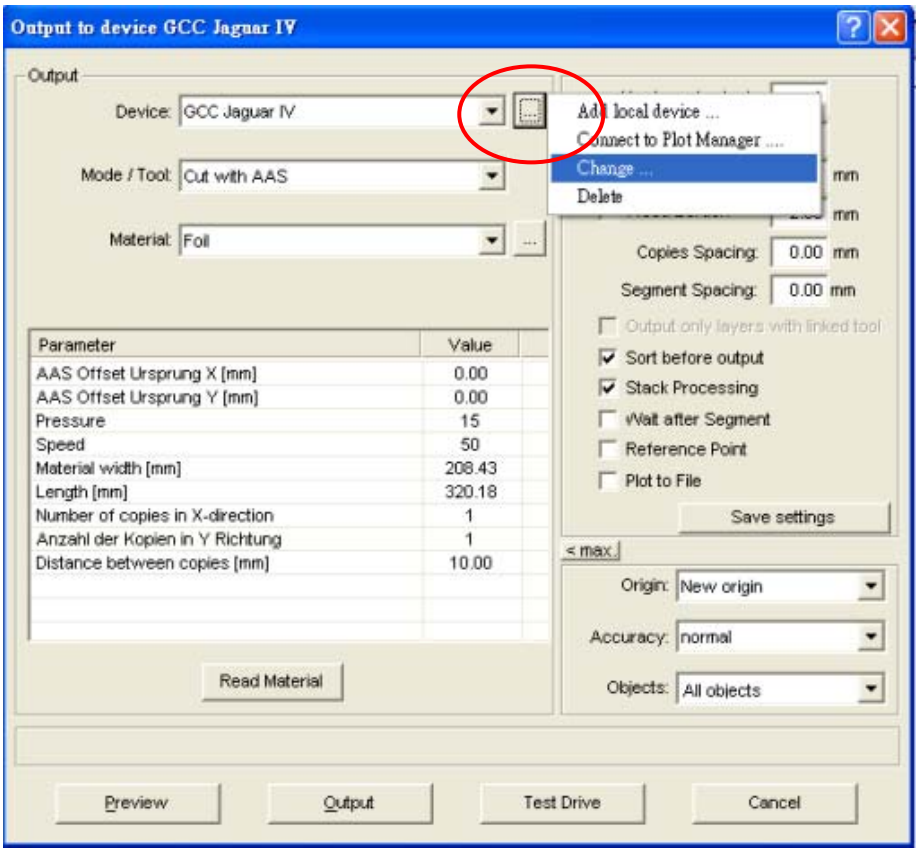
Wrong: (You cannot select the whole images.)



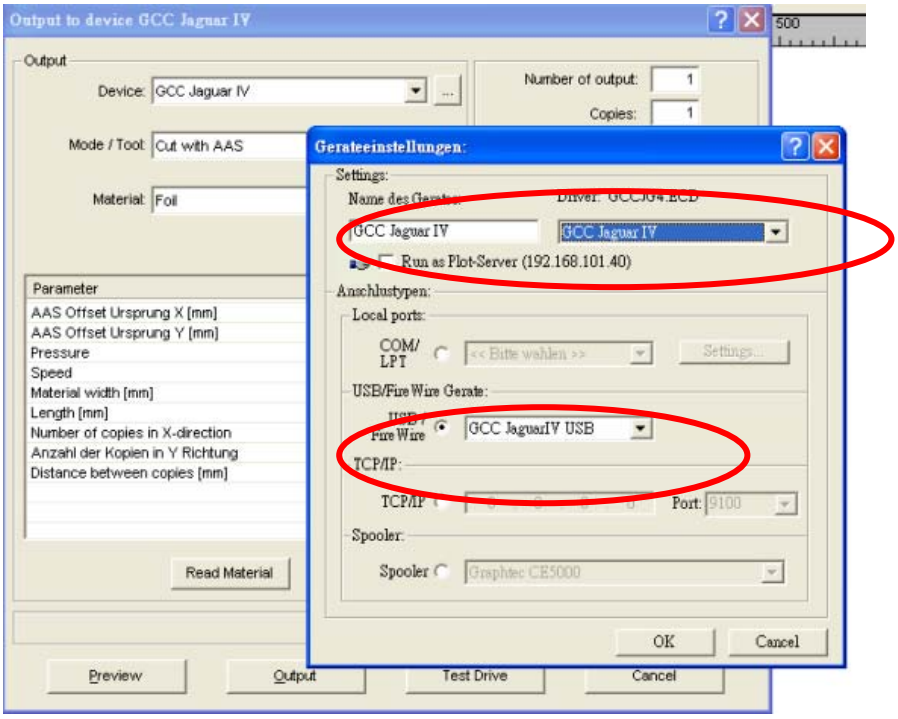
Now you can output the image.



A. Before output, you need to set up your cutter.



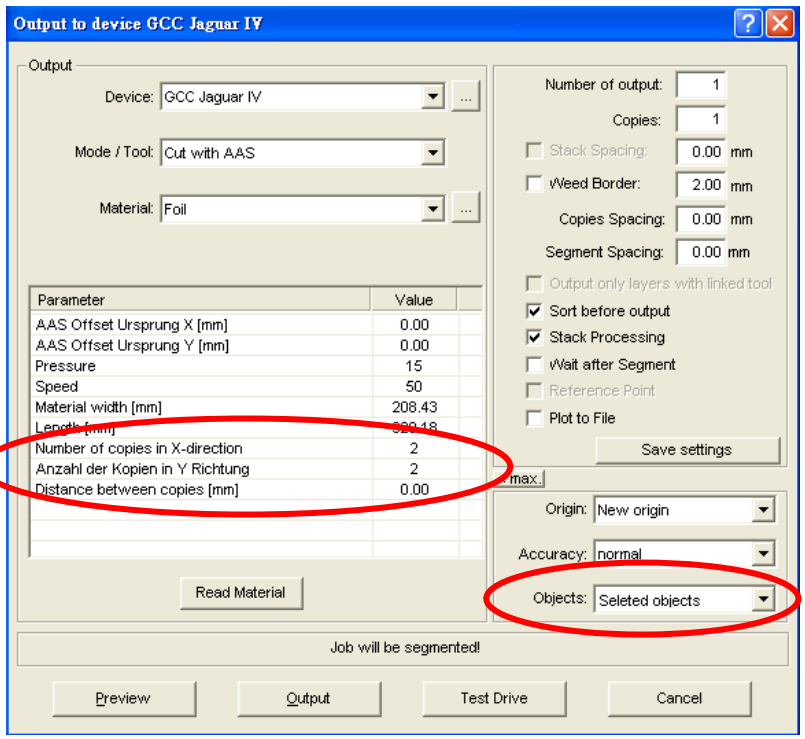
B. Select the series of cutter and the USB port.



C. Set up the number of copies you need to cut here.

Note:

1. The number of copies and distance between copies should be the same as you made before (Step 4).
2. You should confirm that the option of objects must show “Selected objects”.



Step 6 You now have a perfectly cut image.

Enjoy!